

UNITED STATES OF AMERICA
POSTAL REGULATORY COMMISSION
WASHINGTON, DC 20268-0001

Before Commissioners:

Ruth Y. Goldway, Chairman;
Mark Acton, Vice Chairman;
Nanci E. Langley; and
Robert G. Taub

Retail Access Optimization Initiative

Docket No. N2011-1

ADVISORY OPINION ON
RETAIL ACCESS OPTIMIZATION INITIATIVE



Washington, DC 20268-0001

December 23, 2011

TABLE OF CONTENTS

| | <i>Page</i> |
|---|-------------|
| I. INTRODUCTION | 4 |
| II. LEGAL AUTHORITY AND PROCEDURAL HISTORY | 6 |
| A. Legal Authority | 6 |
| B. Statutory Obligations..... | 7 |
| C. Procedural History | 9 |
| III. REQUEST AND TESTIMONY | 14 |
| A. Postal Service Proposal..... | 14 |
| 1. Postal Service Request..... | 14 |
| 2. Postal Service Witness James J. Boldt | 17 |
| 3. Postal Service Institutional Witness Dean J. Granholm | 19 |
| B. Participant Testimony | 20 |
| 1. Public Representative | 21 |
| 2. American Postal Worker's Union, AFL-CIO | 26 |
| 3. Center for Study of Responsive Law..... | 29 |
| 4. National League of Postmasters of the United States..... | 31 |
| 5. National Association of Postmasters of the United States | 34 |
| 6. National Newspaper Association..... | 35 |
| 7. Frederick D. Foster | 37 |
| C. Surrebuttal Testimony..... | 37 |
| 1. David R. Ruiz (USPS-SRT-1)..... | 37 |
| 2. James J. Boldt (USPS-SRT-2)..... | 38 |

TABLE OF CONTENTS

| | <i>Page</i> |
|---|-------------|
| IV. RETAIL ACCESS OPTIMIZATION INITIATIVE GOALS AND SUCCESS MEASUREMENT | 39 |
| A. RAOI Goals..... | 39 |
| B. Measuring How Well the RAOI Meets Its Goals | 41 |
| V. DEVELOPMENT OF THE RAOI AND SCREENING CRITERIA APPLICATION..... | 44 |
| A. RAOI Screening Overview | 44 |
| B. Parties Legal Critique of RAOI Low Workload and Low Revenue Screening Criteria | 46 |
| 1. Parties Contend Screening Criteria Identify Post Offices Operating at a Deficit | 46 |
| 2. Parties Contend Screening Criteria Specifically Identify Rural Post Offices | 48 |
| 3. Commission Legal Analysis of Section 101(b) | 50 |
| C. Parties Contend Screening Criteria Unduly Discriminates | 51 |
| 1. APWU Discusses Minor Differences Between RAOI Rural Areas and Non-RAOI Rural Areas | 52 |
| 2. APWU Discusses Differences Between RAOI Urban Areas and Non-RAOI Urban Areas and Alleges Disparate Impact..... | 53 |
| 3. Commission Legal Analysis of Section 403(c) | 55 |
| D. Parties' Critique of Post Office, Station, Branch, and Retail Annex Screening Criteria | 56 |
| 1. Lack of Any Distance to Alternate Access Sites for Low Revenue and Low Workload Post Offices..... | 56 |
| 2. Lack of Robust or Complete Data in Screening for Low Workload and Low Revenue Post Offices..... | 58 |

TABLE OF CONTENTS

| | <i>Page</i> |
|---|-------------|
| 3. Screening Criteria of Geometric Distance Used for Stations, Branches, and Retail Annexes | 59 |
| 4. Alternate Service Location Offerings..... | 61 |
| 5. Overlap of RAOI and Nearest Neighbor Facilities | 61 |
| 6. Commission Analysis of Parties' Critiques of Postal Service's Screening Criteria | 62 |
| VI. USE OF ALTERNATE METHODS TO ACHIEVE GOALS | 64 |
| A. Introduction | 64 |
| 1. Witness Waters Optimization Approach | 67 |
| 2. United States Postal Service Office of Inspector General's Sponsored Research | 71 |
| VII. DATA QUALITY ISSUES AND REVENUE/COST IMPLICATIONS..... | 82 |
| A. Introduction | 82 |
| B. Parties' Positions | 83 |
| C. Commission Analysis..... | 84 |
| VIII. DISCONTINUANCE PROCEDURES AND THE PO-101 HANDBOOK PROCESS..... | 88 |
| A. Provision of Notice, Information and Opportunity to Comment | 90 |
| 1. Parties' Concerns | 90 |
| 2. Commission Analysis | 91 |
| B. Consideration of Community Concerns | 92 |
| 1. Parties' Concerns | 92 |
| 2. Commission Analysis | 93 |
| C. PO-101 Statutory Compliance | 94 |

TABLE OF CONTENTS

| | <i>Page</i> |
|---|-------------|
| 1. Parties' Concerns | 94 |
| 2. Commission Analysis | 95 |
| D. Continuous Improvement of Discontinuance Procedures | 96 |
| 1. Parties' Concerns | 96 |
| 2. Docket No. N2009-1 Advisory Opinion..... | 96 |
| 3. Commission Analysis | 102 |
| IX. ALTERNATIVE ACCESS | 104 |
| A. Current Alternative Access Options | 106 |
| 1. Stamps on Consignment..... | 106 |
| 2. Approved Shippers..... | 107 |
| 3. Village Post Offices | 107 |
| 4. The Postal Service's Public Website..... | 108 |
| 5. Automated Postal Centers | 108 |
| 6. Contract Postal Units | 109 |
| 7. Rural Delivery Carriers..... | 109 |
| B. Commission Analysis..... | 110 |
| 1. Analysis of Alternative Access Options Presented..... | 110 |
| 2. Specific Concerns for Alternative Access in Rural and Remote Areas..... | 112 |
| 3. The Postal Service's PAEA Section 302 Plan..... | 113 |
| 4. Additional Alternative Access Options..... | 114 |

TABLE OF CONTENTS

Page

| | |
|------------------------|-----|
| X. CERTIFICATION | 116 |
|------------------------|-----|

CONCURRING OPINION OF CHAIRMAN GOLDWAY

APPENDIX A—MAPS PERTAINING TO CHAPTER V Section B: APPLICATION OF
RAOI SCREENING CRITERIA

APPENDIX B—ATTEMPTED FINANCIAL ANALYSIS ILLUSTRATING DATA QUALITY
ISSUES

EXECUTIVE SUMMARY

The Postal Regulatory Commission has analyzed the Postal Service's Retail Access Optimization Initiative, a program that identifies more than 3,650 post offices, retail annexes, stations, and branches for possible closing.

The Commission has evaluated the Postal Service's presentation and the evidence submitted by interested members of the public, and finds that the Retail Access Optimization Initiative is likely to affect service on a nationwide basis. The primary Commission finding is that notwithstanding its name, the Retail Access Optimization Initiative is not designed to optimize the retail network.

The Commission advises that:

- Modern optimization modeling tools and techniques exist that would allow the Postal Service to identify how it can improve its retail network.
- The Postal Service should develop a model using these available tools and techniques to ascertain how its retail network could better maximize net retail revenues while fulfilling statutory service obligations.

The Commission further advises that accurate and reliable information concerning the cost of operating candidate facilities and the revenue generated by these candidate facilities are central considerations in evaluating the benefits of Postal Service initiatives like the Retail Access Optimization Initiative. Currently, the Postal Service does not collect facility-specific cost and revenue data for certain categories of facilities. The Postal Service also does not separate the costs of its retail activities from its other operating costs.

Given these key cost and revenue data limitations, the Commission is unable to develop reliable cost savings estimates on either a program-wide or average facility basis. The Commission recognizes that developing this information is not cost free. However, given the importance of an informed assessment of program cost and revenue implications, the Commission recommends that:

- Cost and revenue data should be available separately for post offices and all subordinate stations, branches and retail annexes.
- Cost data for retail activities should be severable from other operating costs.

The Commission review included examination of the procedures recently established by the Postal Service to evaluate individual retail facilities for discontinuance. The process is a significant improvement over previous procedures. It relies heavily on local managers, and if properly applied, should provide meaningful public participation.

To ensure proper implementation, the Commission identifies possible methods for enhancing the process and recommends that training of local managers include:

- A thorough review of the scope of the statutory standards applicable to retail access.
- More robust processes for obtaining and evaluating relevant community information.
- Information on how other existing Postal Service initiatives may impact the availability of postal services in the affected area.

A weakness of the current program is the absence of internal after-the-fact reviews to evaluate whether the established procedures are effective and well understood by employees, and to learn whether substitute services are meeting community needs. The Commission recommends that the Postal Service conduct reviews of past discontinuance decisions to identify best practices and areas for further improvements.

The question of suitable alternative access is a core concern of this regulatory review. Many alternatives offer only a limited array of postal services. The Postal Service indicates it is attempting to expand types and availability of alternative access. While this effort is laudable, in evaluating whether to close facilities it is insufficient for the Postal Service to have future plans to develop and cultivate alternatives. Alternative access must be a presently available, viable and adequate substitute for existing access.

I. INTRODUCTION

The Postal Service requests an advisory opinion from the Commission on its Retail Access Optimization Initiative (RAOI). The RAOI involves reviewing retail outlets to ascertain whether they can be closed without significantly impairing public access to postal services. After applying screening criteria that attempt to distinguish facilities with low demand, the Postal Service has identified 3,652¹ postal retail facilities nationwide that it is considering for potential closure as part of the RAOI.

This Advisory Opinion examines the RAOI in light of the policies of title 39 and the evidence in the record developed in accordance with 5 U.S.C. §§ 556 and 557. Chapter II summarizes the legal authority and statutory obligations of the Postal Service and the Commission, and also includes the procedural history of the case. Chapter III provides details of the parties' presentations, including the Postal Service's and intervenors' filings.

The Commission's review of the RAOI begins in chapter IV with a discussion of the Postal Service's goals and whether there is a mechanism to measure whether those goals are met at the conclusion of the RAOI. In chapter V, the Commission considers the development of the RAOI screening criteria, and the parties' concerns with the application of the criteria.

After considering the Postal Service's goals and development of the RAOI, the Commission presents different ways the Postal Service could consider meeting those goals in chapter VI. The record contains two economic models that attempt to optimize the Postal Service's retail network, and the Commission explains the benefits and drawbacks of each model.

¹ In the Postal Service's filings in this case, the total number of RAOI facilities differs slightly. The Commission follows the Postal Service's references and does not attempt to resolve the apparent discrepancy.

Both the Commission's review of the RAOI's development and consideration of models to improve future initiatives were complicated by data quality issues. Those data quality issues are discussed in chapter VII. The Commission explains the need for accurate, disaggregated, robust, and comparable data throughout the process.

The Postal Service's discontinuance review procedure is the next step in the RAOI after application of the screening criteria. The Commission explains and reviews the procedures the Postal Service will utilize to consider the RAOI facilities for closure in chapter VIII. The discontinuance review procedures attempt to ensure the Postal Service's compliance with title 39 provisions relating to discontinuance. In this chapter, the Commission also discusses relevant recommendations concerning discontinuance procedures that were raised in the Commission's Docket No. N2009-1 Advisory Opinion.

Finally, the Postal Service predicates its ability to discontinue facilities while still maintaining adequate access, in part, on the availability of alternate access. Chapter IX explains the types of alternate access the Postal Service provides and whether that access is a viable alternative to postal retail facility access.

Appendix A contains a discussion of the use of GIS tools to evaluate optimization or screening efforts. Appendix B discusses attempts to quantitatively evaluate the RAOI's cost and revenue effects.

II. LEGAL AUTHORITY AND PROCEDURAL HISTORY

A. Legal Authority

Section 3661(b) of title 39 reads:

When the Postal Service determines that there should be a change in the nature of postal services which will generally affect service on a nationwide or substantially nationwide basis, it shall submit a proposal, within a reasonable time prior to the effective date of such proposal, to the Postal Regulatory Commission requesting an advisory opinion on the change.

On July 27, 2011, the Postal Service filed a request with the Commission asking for a determination as to whether its plan to evaluate its retail network for closure of certain facilities constitutes a change in the nature of postal services on a substantially nationwide basis within the meaning of 39 U.S.C. § 3661(b).² *Id.* at 1. The plan, identified by the Postal Service as the Retail Access Optimization Initiative, is a screening and review process that identifies a manageable number of candidate post offices, stations, branches, and retail annexes to which the Postal Service will apply discontinuance procedures to determine whether those facilities should continue to operate. *Id.*

The Postal Service requests that if the Commission determines the RAOI will likely generate changes in the nature of postal services on a substantially nationwide basis, the Commission issue an advisory opinion as to whether the RAOI conforms with the policies reflected in title 39 of the United States Code. *See id.* at 2, 39 U.S.C. 3661(c).

The Commission finds that the application of the RAOI will lead to service changes “at least substantially nationwide in scope” as set forth in section 3661. The

² Request of the United States Postal Service for an Advisory Opinion on Changes in the Nature of Postal Services, July 27, 2011 (Request).

Commission issues this Advisory Opinion on the Postal Service's proposed changes, as required by 39 U.S.C. 3661(b).

B. Statutory Obligations

The Postal Service operates as a basic and fundamental service to the American public that binds the nation together through the personal, educational, literary, and business correspondence of the people. 39 U.S.C. § 101(a). The Postal Service must provide "prompt, reliable, and efficient services to patrons in all areas and shall render postal services to all communities." *Id.* "The costs of establishing and maintaining the Postal Service shall not be apportioned to impair the overall value of such service to the people." *Id.*

In rural areas, communities, and small towns where post offices are not self-sustaining, the Postal Service must provide a maximum degree of effective and regular postal services. 39 U.S.C. § 101(b). The Postal Service may not close a small post office solely for operating at a deficit, "it being the specific intent of the Congress that effective postal services be insured to residents of both urban and rural communities." *Id.*

The Postal Service has the duty

to establish and maintain postal facilities of such character and in such locations, that postal patrons throughout the Nation will, consistent with reasonable economies of postal operations, have ready access to essential postal services.

39 U.S.C. § 403(b)(3). In providing services, the Postal Service may not, except where authorized by law, "make any undue or unreasonable discrimination among users of the mails, [or]...grant any undue or unreasonable preference to any such user." 39 U.S.C. § 403(c). The Postal Service is also empowered to determine the need for post offices or other facilities, and provides those facilities as it deems necessary. 39 U.S.C. § 404(a).

The Commission previously reviewed the scope of the Postal Service's obligations under title 39 in its Universal Service Obligation Report.³

Many of the terms used to delineate the Postal Service's obligations are not defined in title 39. Section 403(b)(3) directs the Postal Service to establish and maintain "postal facilities," but does not equate the term with "post offices" or any other particular type of facility. Likewise, the facilities must be of "such character" and in locations that postal patrons "have ready access" to "essential postal services." No definition of "ready access" or "essential postal services" appears in the statute. When providing that ready access, the Postal Service may select the type and location of facilities "consistent with reasonable economies of postal operations." 39 U.S.C. § 403(b)(3).

Section 404(a)(3) gives the Postal Service the authority "to determine the need for post offices" and "to provide such offices...as it determines are needed...." On the other hand, section 404(d) limits the Postal Service's authority to close or consolidate post offices, requires the Postal Service to consider certain factors before ordering a closure or consolidation, and creates a right of appeal to the Commission for closure or consolidation decisions.

Section 101(b) prohibits the Postal Service from closing a small post office solely for operating at a deficit. Similar annual appropriations act language, enacted every year since 1985, requires that "none of the funds provided in this Act shall be used to consolidate or close small rural and other small post offices in the fiscal year...." See, e.g., Consolidated Appropriations Act, 2008, Pub.L. 110-161; 121 Stat. 2013.

The Postal Service is afforded a significant amount of authority under the statute, and has reasonable discretion to interpret the ambiguous terms delineating its powers

³ Report on Universal Postal Service and the Postal Monopoly, December 19, 2008 (USO Report).

and obligations. Certain safeguards, such as the section 3661 advisory opinion process, help ensure that the Postal Service adheres to the policies of title 39.

The Commission previously concluded in its USO Report

that the Postal Service's obligation is to provide postal service throughout the United States, its territories, and possessions; to and from foreign regions pursuant to agreements with the United States military, United States agencies, and agreements relating to international postal services and international delivery services, subject to reasonable economic and efficiency limitations. The obligatory geographic scope for postal products can vary from product to product so long as the reason for the variation is based upon reasonable economic and efficiency limitations and is not unduly discriminatory.

USO Report at 23, (internal citations omitted).

C. Procedural History

Title 39 sets forth the specific process to be used in formulating this Advisory Opinion. Section 3661(c) requires that

[t]he Commission shall not issue its opinion on any proposal until an opportunity for hearing on the record under sections 556 and 557 of title 5 has been accorded to the Postal Service, users of the mail, and an officer of the Commission who shall be required to represent the interests of the general public. The opinion shall be in writing and shall include a certification by each Commissioner agreeing with the opinion that in his judgment the opinion conforms to the policies established under this title.

The Commission has afforded the Postal Service, users of the mail, and an officer of the Commission representing the interests of the public, with a formal hearing on the record, pursuant to 5 U.S.C. §§ 556 and 557.

In Order No. 778, the Commission noticed the proceeding in the *Federal Register*, appointed a Public Representative pursuant to 39 U.S.C. §§ 505 and 3661(c),

and set a preliminary procedural schedule.⁴ Chairman Ruth Y. Goldway was designated to serve as Presiding Officer in the N2011-1 docket.⁵ On September 15, 2011, the Presiding Officer amended the procedural schedule after a request from the Public Representative to allow for additional time for the Postal Service to respond to outstanding discovery requests necessary for formulation of rebuttal testimony.⁶ On October 4, 2011, the Presiding Officer granted the Postal Service's request to extend the procedural schedule so it could have additional time to file discovery on rebuttal testimony.⁷

The Postal Service supported its request with testimony from one witness.⁸ The Postal Service also supported its request with 26 public library references⁹ and 22 nonpublic library references.¹⁰ Intervening parties and the Public Representative propounded discovery on the Postal Service to clarify the request and witness testimony. A hearing to enter the Postal Service's direct testimony and provide an opportunity for cross-examination was held at the Commission's offices in Washington, D.C. on September 8, 2011. The Commission directed the Postal Service to provide an institutional witness to clarify the Postal Service's institutional discovery responses at that hearing.¹¹

⁴ Notice and Order Concerning Request for an Advisory Opinion Regarding the Consideration for Closure of Approximately 3,650 Postal Retail Locations, July 28, 2011, at 5 (Order No. 778).

⁵ Notice of the Chairman Designating Presiding Officer, July 28, 2011.

⁶ Presiding Officer's Ruling on Public Representative Motion to Extend Procedural Schedule, September 15, 2011.

⁷ Presiding Officer's Ruling Modifying the Procedural Schedule, October 4, 2011.

⁸ Direct Testimony of James J. Boldt on Behalf of United States Postal Service, July 27, 2011 as revised by errata August 19, 2011 (USPS-T-1).

⁹ See USPS-LR-N2011-1/1 through USPS-LR-N2011-1/26.

¹⁰ See USPS-LR-N2011-1/NP1 through USPS-LR-N2011-1/NP22.

¹¹ The Postal Service provided Dean J. Granholm.

Seven intervening parties submitted 10 pieces of rebuttal testimony in response to the Postal Service's direct case.¹² The Public Representative's rebuttal testimony was supported by two nonpublic library references¹³ and the American Postal Workers Union (APWU) testimony was supported by one public library reference.¹⁴ Intervening parties' testimony was subject to discovery from the Postal Service and other parties. Two days of hearings to enter intervenors' rebuttal testimony and provide an opportunity for cross-examination were held at the Commission on October 17-18, 2011.

The Postal Service elected to submit surrebuttal testimony from two witnesses¹⁵ to address issues raised in the rebuttal testimony. A hearing to enter the surrebuttal testimony into the record and provide an opportunity for cross-examination was held at the Commission on October 28, 2011.

The record also includes designated cross-examination responses and other materials incorporated pursuant to Presiding Officer Rulings 19, 22, and 24. See Tr. 2/627-852; Tr. 6/1857-2002.

¹² Direct Testimony of Max Heath, NNA T-1 on Behalf of National Newspaper Association (NNA-T-1), September 16, 2011; Testimony of Frederick D. Foster Objection to RAOI (FDF-T-1), September 21, 2011; Direct Testimony of Anita B. Morrison on Behalf of American Postal Workers Union, AFL-CIO (APWU-T-1); Direct Testimony of Jeffrey Musto, CSRL-T-1 on Behalf of the Center for Study of Responsive Law (CSRL-T-1); Rebuttal Testimony of Rita Zilinski on Behalf of the National Association of Postmasters of the United States (NAPUS-T-1); Rebuttal Testimony of Curt Artery on Behalf of the National Postmasters of the United States (NAPUS-T-2); Rebuttal Testimony of Mark Strong on Behalf of the National League of Postmasters of the United States (NLPM-RT-1); Rebuttal Testimony of Mayor Donald Hobbs on Behalf of the National League of Postmasters (NLPM-RT-2); Testimony of Nigel Waters, Sponsored by the Public Representative (PR-T-1); Direct Testimony of John P. Klingenberg on Behalf of the Public Representative as revised by errata October 4, 2011 (PR-T-2); all filed September 26, 2011.

¹³ See PR-N2011-1/NP1 and PR-N2011-1/NP2.

¹⁴ See APWU-LR-N2011-1/1.

¹⁵ Surrebuttal Testimony of David R. Ruiz on Behalf of United States Postal Service (USPS-SRT-1) Surrebuttal Testimony of James J. Boldt on Behalf of the United States Postal Service (USPS-SRT-2), both filed October 24, 2011.

Ten parties, including the Postal Service and the Public Representative, submitted briefs on November 4, 2011.¹⁶ Seven parties submitted reply briefs.¹⁷

The Presiding Officer closed the evidentiary record on November 3, 2011 and set forth the last designations of cross-examination and other material for the evidentiary record.¹⁸

The Postal Service, in its brief, criticizes several of the Presiding Officer's rulings made from the bench.¹⁹ Specifically, the Postal Service contends that the Presiding Officer incorrectly applied the Administrative Procedures Act (APA) as well as Commission rules. *Id.* The Postal Service contends that it was not provided adequate opportunity to fully explore particular lines of questioning or given an adequate chance to challenge the validity of aspects of intervenor studies and testimony. *Id.*

Rather than request certification to the Commission of specific Presiding Officer's decisions as allowed under Commission rule 3001.32, the Postal Service has elected to raise the arguments on brief interspersed with discussion of the record evidence. *Id.*

¹⁶ Initial Brief of David B. Popkin; Submission of Brief on Behalf of Association of United States Postal Lessors (AUSPL) Regarding the U.S. Postal Service's Retail Access Optimization Initiative Initial Brief (AUSPL Brief); Comments of National Newspaper Association in Lieu of Initial Brief (NNA Brief); Initial Brief of the United States Postal Service including November 8, 2011 Errata (Postal Service Brief); Initial Brief of Valpak Direct Marketing Systems Inc., and Valpak Dealers' Association, Inc. (Valpak Brief); The National Association of Postmasters of the United States Initial Brief (NAPUS Brief); Submission on Behalf of the Center for Study of Responsive Law Regarding the U.S. Postal Service's Retail Access Optimization Initiative Initial Brief (CSRL Brief); Initial Brief of the Public Representative (PR Brief); Initial Brief of the National League of Postmasters (NLP Brief); Initial Brief of the American Postal Workers Union, AFL-CIO (APWU Brief); all filed November 4, 2011.

¹⁷ Reply Brief of Valpak Direct Marketing Systems, Inc., and Valpak Dealers' Association, Inc. (Valpak Reply Brief); Reply Brief of the Public Representative (PR Reply Brief); The National Association of Postmasters of the United States Reply Brief (NAPUS Reply Brief); Reply Brief of the National League of Postmasters (NLP Reply Brief); Reply Brief of the American Postal Workers Union, AFL-CIO (APWU Reply Brief); all filed November 10, 2011; see also Reply Brief of Jeffrey Musto, on Behalf of the Center for Study of Responsive Law (CSRL Reply Brief), November 11, 2011.

¹⁸ Presiding Officer's Ruling on Designations, Clarifying Evidentiary Status of Library References, Correcting Transcripts, and Closing the Evidentiary Record, November 3, 2011.

¹⁹ See, Initial Brief of the United States Postal Service, November 4, 2011, at 31, 40, 51, 71-73 and 85 (Postal Service Brief).

These Postal Service arguments can be characterized most appropriately as “weight of the evidence” arguments; that is to say, the Postal Service is challenging the amount of weight the Commission should accord this evidence. As has been the case in all litigated cases before the Commission (including its predecessor, the Postal Rate Commission), where insufficient support or opportunity for cross-examination is provided for statements in testimony and the record, the Commission discounts the weight of that evidence or those statements. The Commission has not relied on evidence to formulate this Advisory Opinion that has not been subject to fair cross-examination and rebuttal consistent with title 5 sections 556 and 557.

In this Advisory Opinion, the Commission examines the Postal Service’s proposed change in the nature of service, the RAOI, in light of the record established in this docket as described above, the Postal Service’s universal service obligation, and the other policies of title 39.

III. REQUEST AND TESTIMONY

A. Postal Service Proposal

1. Postal Service Request

On July 27, 2011, the Postal Service filed a Request with the Postal Regulatory Commission for an opinion on whether changes in the nature of postal service from its RAOI constitute a substantially nationwide change in service. If the changes are substantially nationwide, the Postal Service requests an advisory opinion pursuant to 39 U.S.C. 3661 regarding whether those changes would conform to the applicable policies of title 39, United States Code. Request at 1.

The Postal Service contends that the RAOI conforms with the policies in title 39, United States Code, and asks that the Commission's Advisory Opinion affirm that conclusion. *Id.* at 12.

a. Scope of the RAOI

The Postal Service describes the RAOI as a centrally-directed plan to consider whether to continue providing service at approximately 3,650 retail facilities. *Id.* at 1. The RAOI, as explained by the Postal Service, is an attempt to determine whether the number of retail facilities in the Postal Service's network can be reduced while maintaining the obligations set forth in title 39 and the Postal Accountability and Enhancement Act of 2006 (PAEA), Pub. L. No. 109-435; 102 Stat. 3219. *Id.* at 3.

The Postal Service describes consumer behavior specifically, consumers' use of non-traditional sources for postal services. *Id.* The Postal Service has attempted to broaden the channels by which customers can access postal services, and intends to further facilitate access by introducing the concept of a "Village Post Office" along with the RAOI. *Id.* at 3-4.

Specifically, the Postal Service has instructed local postal managers to commence initial feasibility studies of all the RAOI candidate post offices in order to identify a subset of the post offices to review for discontinuance. *Id.* at 9. The Postal Service contends that the initial feasibility review of facilities as part of the RAOI does not constitute a change in postal services. *Id.* The Postal Service states that the change in postal services, if it occurs, would be after a final determination to close a facility is made and the facility closes. *Id.*

The Postal Service states that the review process, for the earliest facilities, will be complete, and the first notices announcing the discontinuance of particular facilities was expected in late October into late December of 2011. *Id.* at 10.

b. Facilities under Review

The Postal Service identified four categories of facilities under review in the RAOI. First, the Postal Service identifies 2,825 post offices with less than 2 hours of earned workload and no greater than \$27,500 in total annual walk-in revenue.²⁰ Request at 5. Second, the Postal Service identifies low revenue stations and branches that have less than \$600,000 in FY 2010 revenue, below-average revenue compared to FY 2008 and FY 2009, and have at least five alternate postal retail access facilities within 2 miles. *Id.* Third, the Postal Service identifies retail annexes that had FY 2010 revenue of between \$600,000 and \$1 million in FY 2010 revenue and have at least five alternate postal retail access facilities within one-half mile. Also part of the third category, are retail annexes meeting the same criteria as the stations and branches in category 2 (less than \$600,000 in FY 2010 revenue, lower FY 2010 revenue than the average annual revenue from FY 2008 and FY 2009, and five alternate access sites within 2 miles). *Id.* A total of 178 retail annexes met the screening criteria for the third category. *Id.* The Postal Service also includes 265 additional post offices, stations, and

²⁰ The Postal Service utilized a \$10,000 threshold for post offices in the state of Alaska.

branches that were undergoing early-stage discontinuance review before the RAOI completed development. *Id.* The Postal Service elects to treat these 265 additional facilities as if they were part of the RAOI, and plans to use the revised discontinuance review process for them. *Id.* at 5-6.

The Postal Service contends that facilities under review for discontinuance, other than those identified as part of the RAOI, are isolated local proposals outside the scope of the RAOI. *Id.* at 11.

c. Use of Revised Handbook

The Postal Service recently updated its rules pertaining to discontinuance of post offices, stations, or branches. See 76 FR 41413, July 14, 2011. The updated rules are incorporated in the Postal Service Handbook PO-101 (PO-101 Handbook). Request at 6.

The rules include updates allowing the Postal Service to implement a discontinuance review from headquarters management level (previously it was only implemented at the local level) in order to improve the consistency of decision making. *Id.* at 7-8. The rules also now clarify factors, such as low earned workload or insufficient customer demand, that could be used to identify candidate retail facilities for an initial discontinuance feasibility review study. *Id.* at 8. The updated rules streamline the discontinuance process by removing waiting periods, eliminating internal Postal Service circulation of hard-copy documents, and creating a web-based tool to access and review operating data. *Id.* Finally, the updated rules subject stations and branches to the same discontinuance review (with the exception of appeal rights) as post offices. *Id.* at 8-9.

2. Postal Service Witness James J. Boldt

The Postal Service's request is supported by the direct testimony of James J. Boldt (USPS-T-1).²¹ Witness Boldt is the National Manager, Customer Service Operations, in the Office of Delivery and Post Office Operations at Postal Service Headquarters. USPS-T-1 at i.

Witness Boldt describes the Postal Service's retail network as one that "dwarfs those of even the largest corporate retail chains in the United States." *Id.* at 2-3. The Postal Service operates part-time and full-time post offices and subordinate retail units. *Id.* at 3. The part-time post offices are classified on the basis of earned workload, down to 2 hours per day. *Id.*

Witness Boldt also describes the Postal Service's alternate access channels for services, including stores that sell postage stamps on consignment, Village Post Offices, approved shippers, the *usps.com* website, rural carriers, Automated Postal Centers, and stamps by mail, fax, and telephone. *Id.* at 4. The Postal Service contends that as use of these alternate access channels has grown, the role of the brick-and-mortar retail network operated by the Postal Service has diminished. *Id.* The Postal Service states that 35 percent of all retail revenue is derived from alternate channels, and the percentage is trending upward. In line with this trend, the Postal Service notes that the annual customer visits at its point of sale locations have been declining since 2007. *Id.* at 6.

The Postal Service states that 85 percent of revenue collected at retail locations grossing less than \$100,000 per annum is from sale of postage. *Id.* at 8. Stamp purchases²² alone account for 21 percent of transactions at these post offices. *Id.*

²¹ Direct Testimony of James J. Boldt on Behalf of United States Postal Service (USPS-T-1), July 27, 2011.

²² Including stamps, multiple stamps, or sheets of stamps, but not coils or books.

The Postal Service contends that an understanding of these trends provides the context and justification of the RAOI. *Id.* at 9.

The Postal Service notes that the number of brick-and-mortar post offices has declined significantly, but gradually, since 1900. *Id.* at 10. Such closures, according to the Postal Service, are reviewed on a case-by-case basis so that local factors may be taken into account. *Id.* at 10-11.

In the RAOI, however, the Postal Service is screening facilities based on objective criteria applied on a nationwide basis. The Postal Service states that of all the retail locations with less than \$100,000 in annual revenue,²³ roughly 90 percent of those facilities are located within 10 miles of the next nearest location, and half are within 5 miles. *Id.* at 11.

Given all of this background information, the Postal Service contends that the RAOI is a review of its physical retail network to determine if there are opportunities for making the network more efficient²⁴ while continuing to provide adequate access. *Id.* at 13. The Postal Service takes note of its financial distress, and states that the RAOI is an opportunity to more “efficiently provide service that meets its obligations to the public.” *Id.*

Specifically, the RAOI is a review of low workload post offices, stations, branches and retail annexes with insufficient demand and available alternate access, and pending discontinuance reviews that have not progressed beyond the public input phase. *Id.* at 14-16. The RAOI screens postal facilities for these criteria for further review as to whether or not they should continue to operate.

²³ “All” locations in this context includes all of the 13,494 locations for which the Postal Service has latitude and longitude data available.

²⁴ The Postal Service does not define how the RAOI is designed to increase efficiency of the network.

After the screening is complete and the post offices are identified, the Postal Service intends to use its revised PO-101 Handbook to determine if any individual facility should close. *Id.* at 17. The PO-101 Handbook gives guidance to local managers and decision makers on how to pursue a discontinuance process, and the information that must be gathered for senior management review and determination. *Id.* at 18-19. The RAOI screened approximately 3,650 facilities to be reviewed using the PO-101 Handbook. *Id.* at 22. Those facilities will be subject to the process described below.

The first step local managers will take is a “feasibility review” after which community input is sought. *Id.* at 19. After this point, postal managers will formally announce the intention to discontinue a facility by posting a proposal and solicit public comments. *Id.* at 20. There is a 60-day comment period for customer input, and postal management considers the comments and other available information to determine whether to recommend discontinuance. Field and headquarters management review the recommendation, and if they agree it should be closed, post a final determination for a 30-day period. The Postal Service contends that for post offices, this 30-day waiting period is the window to appeal the closing to the Commission. *Id.*

The Postal Service states that the first of the final determinations would be posted in late October 2011, meaning the earliest an RAOI screened facility would close is late December 2011. *Id.* at 23.

3. Postal Service Institutional Witness Dean J. Granholm

At the hearing to enter the Postal Service’s direct case into evidence, and allow for oral cross-examination of Postal Service witnesses, the Commission directed the Postal Service to provide a witness able to answer questions on behalf of the Postal Service as an institution. The Postal Service provided Dean J. Granholm as that witness. Tr. 1/600.

The Postal Service confirms that it made changes to the RAOI and its discontinuance procedures as a result of the Commission's Advisory Opinion on the Station and Branch Optimization and Consolidation Initiative issued in Docket No. N2009-1.²⁵ *Id.* at 602-03.

Specifically, the Postal Service states that it has engaged in extensive training on the new discontinuance procedures from the District Manager and Area Vice President level through the local Coordinator level. *Id.* at 603-04. The Postal Service also confirms that it has better articulated the objectives and attained more consistency in this initiative through its use of a top-down review. *Id.* at 604-05. The Postal Service states that community notification and input have been strengthened under the new closing procedures. *Id.* at 605. By including stations and branches in the same kind of discontinuance review process as post offices, the Postal Service states that it strengthened the "effect on community" analysis that was completed under previous reviews for closure of stations and branches. *Id.* at 606-07. The Postal Service states that it reviewed the financial analysis of facilities and developed criteria that will be used in every discontinuance. *Id.* at 608.

B. Participant Testimony

During the course of this proceeding, seven parties sponsored rebuttal testimony of 10 witnesses: the Public Representative, the American Postal Worker's Union, AFL-CIO, the Center for Study of Responsive Law, the National League of Postmasters of the United States, the National Association of Postmasters of the United States, the National Newspaper Association, and Frederick D. Foster. Each party sponsored the testimony of one witness with the exceptions of the Public Representative, the National League of Postmasters of the United States, and the National Association of Postmasters of the United States, who sponsored the testimony of two witnesses each.

²⁵ Advisory Opinion Concerning the Process for Evaluating Closing Stations and Branches, March 10, 2010 (Docket No. N2009-1 Advisory Opinion).

All of the rebuttal witnesses' testimony is summarized below grouped by sponsoring party.

1. Public Representative

Nigel Waters, PhD (PR-T-1) and John P. Klingenberg (PR-T-2) testify on behalf of the Public Representative.

a. Nigel Waters (PR-T-1)

Nigel Waters is a professor of Geography and Geoinformation Science and Director of the Center of Excellence for Geographic Information Science at George Mason University. He has published papers on Geographic Information Systems (GIS) and transportation planning.

In his testimony, he evaluates the RAOI proposal to close post offices. Due to data and time limitations, his analysis focuses on application of the RAOI to the state of Kansas, but witness Waters recommends that his analysis be performed throughout the entire country.

Waters' analysis uses what he describes as the industry leading GIS software, ArcGIS, which allows him to store locations of all post offices in the United States. He also draws upon other databases including the road networks and population data from the United States Census Bureau (U.S. Census Bureau). The use of this software and these other data systems allowed him to look at the impact of closing post offices in the state of Kansas.

Using these programs and data, Waters determines (1) how the distance to a post office and how the area served would also be impacted upon the closure of postal facilities; (2) the population characteristics of those residents that are in the most highly impacted areas; and (3) how to optimize the choice of post offices that would be closed so that the closures would have less of an impact on population while allowing for more

closures than those proposed by the Postal Service. He contends that his optimal choices of potential closures are better than the RAOI in terms of the service provided to the residents of Kansas.

To arrive at his findings with respect to average service area, Waters constructs Thiessen polygons²⁶ around the post offices such that any location inside a polygon is closer to the post office contained within the polygon than any post office outside the polygon. He believes that these Thiessen polygons serve as a rough proxy for estimating the total service area for each Kansas post office location. This analysis shows that, currently, the average service area before any proposed closure is 127.7 square miles, while the average service area after all the proposed closures is 161.3 square miles. He notes that this is an increase of 26 percent.

His analysis also shows that the mean population of a post office service area in Kansas before the proposed closures is 4,285 people, while the mean population of a post office service area after the proposed closures is 5,271 people, an increase of 23 percent.

To determine where a post office service area size will change significantly after the proposed closures in Kansas, Waters does a Getis-Ord Gi* Hot Spot analysis²⁷ of the Thiessen polygon sizes before and after closure. This analysis shows three areas of the “emergence of significant clusters of expanded service areas in the north and south central portion of the state after the proposed closures.” *Id.* at 6-7. Witness Waters does a demographic analysis from the 2010 census for those three regions and compares them to Kansas as a whole. His analysis finds that these areas are

²⁶ Thiessen polygons are polygons whose boundaries define the area that is closest to each point relative to all other points. They are mathematically defined by the perpendicular bisectors of the lines between all points.

²⁷ A Getis-Ord Gi* Hot Spot analysis identifies statistically significant clusters of large service areas (hot spots) and small service areas (cold spots). PR-T-1 at 6.

demographically different with respect to median age, percentage of housing renters, and households headed by a female. *Id.*

Waters also performs an average nearest neighbor analysis for the Kansas post office locations before and after the proposed RAOI closures using an average straight-line distance between a given location and its nearest neighbor postal retail facility. He finds that the increase in average maximum distance between post office locations in Kansas represents a 7 percent increase in the maximum distance a patron would encounter when driving to the nearest post office. The analysis also shows that locations of post offices would be somewhat less evenly spread out than they were before the proposed closures.

Additionally, Waters performs a location allocation analysis of the 647 post offices in Kansas to evaluate how closely the proposed post office closures correspond with an “optimized solution” for post office locations in Kansas. For his optimization analysis, Waters uses an algorithm to minimize the average distance to each post office for residents, the “Minimize Impedance” solution. This analysis concludes the optimum location of 513 post offices in Kansas, which is the number of post offices that would remain open if the Postal Service closed all the Kansas postal facilities on its RAOI list. His location allocation analysis shows that, if the primary goal was to minimize the average distance of the population served by its nearest post office, the RAOI list of closures in Kansas is less than optimal, and a different set of closures would achieve greater savings in travel time and travel distance encountered by potential post office patrons. *Id.* at 10-11.

At the conclusion of witness Waters’ analysis, in addition to recommending completion of the analysis nationwide, he suggests that the following other types of spatial analysis be conducted: (1) accessibility analysis, (2) service area analysis, (3) an analysis of the socio-economic dimensions of the populations impacted by the proposed closures, and (4) a location allocation analysis using other methodologies.

b. John P. Klingenberg (PR-T-2)

John P. Klingenberg is an economist for the Postal Regulatory Commission and holds a degree in economics from the Virginia Polytechnic Institute and State University. Witness Klingenberg's testimony discusses six major areas.

First, witness Klingenberg attempts to determine the cost of all postal retail facilities. He estimates those costs at approximately 8 percent of total accrued cost, or \$5.8 billion but cautions that this estimate may overstate the true operating cost because it allocates all postmaster and rent costs to the retail network.

Second, he provides an analysis of the RAOI's low workload post offices. As an initial matter, witness Klingenberg notes that the data availability limits his analysis of the RAOI proposal. He also points out several issues with the quality of data for a number of offices. He believes that the costs attributable to these postal facilities likely overstate the cost of operating a low workload retail facility. Notwithstanding, his analysis shows that only 35 of the 2,646 low workload retail facilities for which data is available are profitable. He believes that it further demonstrates that the Postal Service's use of only walk-in revenue to measure revenue of a post office for purposes of the RAOI almost guarantees that such facilities are unprofitable.²⁸ Witness Klingenberg then draws a connection between the low workload selection criteria under the RAOI and rural offices operating at a deficit. He also finds that the total operating cost of the 2,646 low workload RAOI offices for which data is available was under \$210 million in FY 2010 and that for the low workload post offices, the nearest post office is on average a driving distance of 10.3 miles away.

Third, witness Klingenberg analyzes the RAOI proposal using GIS. He finds that if all the RAOI facilities were closed, the average person would be 3 percent further

²⁸ As part of this analysis, he points out issues with closing facilities that have responsibilities extending beyond the retail window functions of a postal retail facility, e.g., Business Mail Entry Unit and rural delivery nodes. PR-T-2 at 8.

away from a post office. For those served by low workload post offices, the average distance would increase from 4.1 miles to 6.81 miles, or 65 percent, while the average distance to a post office for people who are currently closest to an RAOI facility would increase by 68 percent.

Fourth, witness Klingenberg notes some international perspectives on proximity to postal outlets. He draws attention to the legal requirements in Australia, Canada, and France regarding the proximity of the population to postal retail facilities. His analysis concludes that the Postal Service does not provide retail access that meets all of the criteria for any one of these three countries.

Fifth, witness Klingenberg argues that the Postal Service should consider demographic, operational, and geographic information data when developing selection criteria for initiatives such as the RAOI. He suggests that the Postal Service consider three of its Office of the Inspector General (USPS-OIG) reports involving improved retail services and reduced costs. In particular, he points to one report finding that the Postal Service could save over \$600 million annually by matching retail workhours with retail workload. The second USPS-OIG report details how the Postal Service could further pursue its Delivery Unit Optimization strategy with respect to retail operations. The third report details how the Postal Service could both minimize cost and maximize revenue through an objective modeling approach developed by Professor Yezer. *Id.* at 17.

Finally, witness Klingenberg notes that a 2009 Gallup poll found that 88 percent of Americans opposed closing their local post office as a means to cut costs. He also notes that the Postal Service has publically stated that the total savings of the RAOI process might be \$200 million. Drawing on his prior analysis, witness Klingenberg suggests that the closure of these RAOI facilities would result in a longer drive to the post office for 16.2 million citizens resulting in an increase in aggregate fuel costs to those individuals of approximately \$232 million.

2. American Postal Worker's Union, AFL-CIO

Anita B. Morrison (APWU-T-1) testifies on behalf of the American Postal Worker's Union, AFL-CIO.

Witness Morrison is a founding principal of Partners for Economic Solutions. She describes Partners for Economic Solutions as an economic consulting firm which focuses on development (including market and financial analysis), economic revitalization strategies, and impact analysis. She has 34 years of experience in evaluating and developing community and business district economic impact studies. APWU-T-1 at 1-3.

In her testimony, witness Morrison discusses her evaluation of the postal facilities being studied for closure under the RAOI to determine the characteristics of the communities served by such postal facilities and whether the process used adversely impacts low income, elderly, and/or minority persons. She also considers community economics. She concludes by recommending improvements to the process to properly mitigate and take into account impacts on these communities. *Id.* at 5.

Her analysis uses demographic characteristics drawn from Environmental System Research Institute, Inc. and U.S. Census Bureau data associated with the facilities being studied under the RAOI. She compares these characteristics to randomly selected rural and urban postal facilities serving as control groups to determine disparities between impacted populations and the general population.²⁹

²⁹ Her definition of urbanized areas represents the Census Bureau's delineation among Urbanized Areas and Urban Clusters.

Witness Morrison states her analysis suggests the following for the 2,891 rural postal facilities being considered for closure:

- The rural postal facilities being considered for closure serve a somewhat higher percentage of low income households. Fifty-seven percent of those rural areas with post offices being considered for closure have higher shares of low income households than the average of the control group; and
- The rural postal facilities being considered for closure serve a somewhat higher percentage of residents age 65 and older.

Witness Morrison states her analysis suggests the following for the urban postal facilities being considered for closure:

- Close-in neighborhoods being served by post offices being considered for closure under the RAOI have significantly higher numbers of low income households. Households in the control group have an average of 19.4 percent of household incomes below \$20,000 while the urban areas with facilities being evaluated for closure have 27 percent of such households.
- Close-in neighborhoods being served by post offices being considered for closure have significantly higher numbers of households that do not own cars; 21.1 percent of households in the areas being studied for closure under the RAOI do not have a vehicle while 10.8 percent of households in the control group do not have a vehicle.
- Close-in neighborhoods being served by post offices being considered for closure have significantly higher numbers of minority residents. Minorities make up 45.7 percent of the population in areas with postal facilities being studied for closure whereas 26.3 percent of residents in the control group are minorities.

Witness Morrison's analysis examines the economic and community development impact of postal facilities and argues that the facilities anchor many business districts across the country and serve as activity generators drawing customers from broad areas. *Id.* at 21. Among other things, she finds that the closures of post offices can have significant negative impacts on business districts, especially in

pedestrian neighborhoods. Witness Morrison also discusses potential burdens that customers may experience because of a postal facility closing. *Id.* at 22. She also notes that some populations affected by the RAOI have special concerns such as unbanked individuals, security of packages in low income neighborhoods, and low income individuals' access to broadband.

Witness Morrison argues that the Postal Service should consider additional factors in its review process. *Id.* at 29. She suggests including the following:

- A demographic profile of nearby residents and the potential impact that poverty, age, and other factors may have on residents' abilities to access alternative postal facilities;
- The extent of mail order sales and whether there are alternative providers;
- Driving times, the availability of a car to drive to the nearest postal facility, and the ease of pedestrian access to the nearest postal facility;
- The adequacy of alternative retail access options to accept delivery of packages, sell money orders, and accept non-prepaid packages;
- The impact on the community business district;
- The burdens imposed on residents as a result of the proposed closure;
- The number of money orders issued; and
- An assessment of the physical landscape and routes to the nearest post office to assist in understanding pedestrian, transit, and auto travel patterns.

Id. at 29-30.

Witness Morrison also suggests that the Postal Service include a brief demographic profile to decision makers detailing the population and businesses currently served to highlight areas for which the proposed closure may significantly impact low income residents, households that do not own cars, and elderly residents.

Witness Morrison's testimony also comments on the Postal Service's methods of soliciting customer feedback. While she considers the updated PO-101 Handbook an improvement over the prior version, she criticizes the Postal Service for not providing a forum for sharing initial Postal Service feedback with the public. *Id.* at 31. She also states that public feedback and input would be enhanced if the public were better informed about the details of the planned alternative services. As a result, she submits that the business case for closing a particular facility should be provided during the closure evaluation process so that residents can review and understand the rationale for a potential closure. In particular, the Postal Service should provide affected residents (1) the cost of providing rural carrier service, (2) the projected additional labor expected to be required at the nearest facility that will take on the closing facilities' responsibilities, (3) the expenses saved by the closure, and (4) whether such savings could be achieved by reducing hours of operation. She also suggests that the Postal Service put up a webpage for each proposed closure with updated information including scheduled meetings and direct links to online surveys and other options for providing feedback.

3. Center for Study of Responsive Law

Jeffrey Musto (CSRL-T-1) testifies on behalf of the Center for Study of Responsive Law.

Witness Musto is a public interest advocate and researcher for the Center for Responsive Law (CSRL). Prior to joining the CSRL, witness Musto worked for the U.S. Public Interest Research Group on a range of issues on behalf of the citizen-consumer. He has conducted research and analysis on a variety of issues, and co-authored nationally released reports on government transparency and corporate tax loopholes.

Witness Musto argues that the Postal Service's RAOI will not yield a maximum degree of service as required by law. He believes that the closure of postal facilities has the potential to cause harm to, and place added burdens on, consumers in

communities where postal facilities will be closed. He finds that the RAOI may leave those most vulnerable in our society to feel the harshest effects of a post office closing and the inherent service cuts related to such closure.

In reaching such conclusions, witness Musto discusses what he considers flaws in the Postal Service's methodology related to alternative access sites and distances to nearest neighboring post offices. In particular, with respect to alternative access sites, witness Musto believes that alternative access options such as stamps on consignment do not provide a maximum degree of service as required by law. Such an action, according to the witness, would represent a diminution of services to patrons. His analysis finds that nearly 17 percent of the postal facilities under consideration for closure "within 2 miles" of alternative access sites have alternative access sites solely composed of stamps on consignment outlets. Over 70 percent of the stations, branches, and annexes included in the RAOI would have been excluded for having insufficient nearby alternative access if stamps on consignment locations were excluded. Additionally, he notes that of the 20,000 alternative access facilities, over 85 percent of them are stamps on consignment outlets.

With respect to distance to nearest neighboring post offices, witness Musto makes two major points. First, he points out that the Postal Service uses geographic³⁰ instead of driving distances to determine the distance between retail locations instead of driving distances. Second, witness Musto criticizes the Postal Service for not using the same subset of post offices as those included in the RAOI for the presentation of certain data. He notes that if "we look at the data that corresponds to the RAOI facilities being studied generally, we see that among these facilities, nearly 30 percent are 10 miles or more away from their nearest neighboring post office" as opposed to the 11 percent identified by witness Boldt. CSRL-T-1 at 8.

³⁰ Geographic and geometric (great circle) distances are not technically synonymous. However, parties use the terms interchangeably in this docket. Such distances, as used in this Advisory Opinion, refer to "as the crow flies" distance as opposed to driving distance.

4. National League of Postmasters of the United States

Mark Strong (NLPM-RT-1) and Mayor Donald Hobbs (NLPM-RT-2) testify on behalf of the National League of Postmasters of the United States.

a. Mark Strong (NLPM-RT-1)

Witness Strong is the President of the National League of Postmasters of the United States. He is also currently the Postmaster of Sun City, Arizona and has served as a postmaster since 1992. Witness Strong started his postal career in eastern Montana in 1973 and has worked in a number of small post offices as a window clerk, distribution clerk, Supervisor of Mails, and Director of Employee and Labor Relations. Before becoming a postmaster, he had also worked as a tour superintendent in customer service and delivery operations. Before becoming postmaster in Sun City, witness Strong worked as a level 22 postmaster in Prescott, Arizona and a level 24 postmaster in Glendale, Arizona. He holds a degree in Management from Western International University.

Witness Strong believes that the RAOI is detrimental to the level of services presently provided to small and rural communities, will hurt their economies and social structure, and does not provide a corresponding benefit to the Postal Service. He attempts to demonstrate that the RAOI process “is seriously flawed,” the existence of alternative access points is limited, and the limited nature of the Village Post Office concept does not satisfy a typical community’s needs. Additionally, his testimony questions the integrity of the Postal Service’s efforts in conducting community meetings as a method of taking into account the needs of communities.

He further argues that there is a disproportionate impact of the RAOI on rural communities. In addition to discussing the experiences of several members of the National League of Postmasters from rural areas, he also points out that Gallup

reported, in a March 2010 poll, that 86 percent of Americans oppose closing post offices.

Witness Strong then discusses what he calls a failure of the Postal Service to consider services and unique needs of communities. In support of this conclusion, he points to specific examples from National League of Postmasters' branch offices around the country.

The testimony also addresses what witness Strong believes is a fundamentally flawed formula for calculating earned workhours as applied to the RAOI. He believes this is due to the fact that (1) some of the hours that a postmaster works are not being captured by the data systems, and (2) the methodology used to calculate other hours is fundamentally flawed, resulting in skewed data.

Witness Strong asserts that despite the opportunity for communities to provide input, congressional exchanges and postmaster accounts demonstrate concerns with such community meetings.³¹

Finally, witness Strong suggests that the Postal Service should do a better job of considering unique community needs. In particular, he suggests that besides walk-in revenue, the following questions be considered:

- (1) Does the community have a geographic center, and is the post office it?
- (2) Do residents regularly gather at the post office, not only to pick up their mail but also to renew social ties and exchange local news?
- (3) Are the elderly, the poor, minority groups, or the disabled disproportionately represented in this community population and does the post office serve the members of such groups in socially significant ways?
- (4) Is the community working to survive or grow?

³¹ He also cites to timing issues with community meetings as well as postmasters having several meetings held in joint locations that require travel for some community members.

- (5) Do customers identify with the town's name?
- (6) Are there small businesses in town and are they located near the post office?
- (7) Have additional business been started in recent years?
- (8) Do the citizens ever unite to solve civic programs and is the post office the center for such unification?
- (9) Is the village population disproportionately illiterate, and do local postmasters go out of their way to meet such special needs?

b. Mayor Donald Hobbs (NLPM-RT-2)

Witness Hobbs is the Mayor of Lohrville, Iowa and serves as the Director of Iowans for Post Office Services. Iowans for Post Office Services is a group of mayors and community leaders from cities and community organizations across Iowa helping to preserve post office services. They represent approximately 50 towns and cities in Iowa, plus a number of other community groups and leaders, including the Iowa League of Cities.

He has a Bachelor of Music degree in church music from Drake University. In addition to being Mayor and Director of Iowans for Post Office Services, he is an organ builder and technical designer at Dobson Pipe Organ builders, Ltd.

Witness Hobbs' testimony provides information on the role of post offices in local rural communities and shows why closing rural post offices is destructive of rural communities, rural economies, and rural America. He is concerned that post offices provide a sense of community identity and spur economic development and their closure will cause harm to these values. He also discusses how and why rural letter carriers and Village Post Offices will not replace necessary services that post offices provide.

Witness Hobbs argues that the Postal Service's proposal will end up not providing a maximum degree of service to rural America. He points to seniors and

persons with limited mobility who would have to go to an outside mailbox, which would be more taxing than what they do today. The RAOI would also make it more difficult to sign for packages or enter pieces into the mailstream for same day acceptance. He also raises concerns with low income people who bank in post offices through the use of money orders.

5. National Association of Postmasters of the United States

Rita Zilinski (NAPUS-T-1) and Curt Artery (NAPUS-T-2) testify on behalf of the National Association of Postmasters of the United States.

a. Rita Zilinski (NAPUS-T-1)

Witness Zilinski is a retired postmaster and a member of the National Association of Postmasters of the United States. Prior to her retirement, for over two decades, she served as postmaster and officer-in-charge of four communities, all in small towns and rural areas. She has also served as president and secretary-treasurer of NAPUS's West Virginia Chapter.

Her testimony discusses her views on the RAOI and how it will have an adverse impact on residential postal customers and small businesses in small towns and rural areas.

She believes that post offices are not simply a place to buy a stamp or drop off a letter, but rather they are a fundamental part of the community—a civic and communal center-of-gravity. She also discusses how the closure of a rural post office can jeopardize confidence in postal security as neighborhood delivery at the end of a rural road can be vulnerable to theft and weather. Witness Zilinski's testimony further addresses how rural carriers provide access that is different from that provided at a post office. She believes that it is not a viable option for many rural residents to wait by their mailboxes for the arrival of their mail carriers to conduct postal business, particularly during winter months or inclement weather.

b. Curt Artery (NAPUS-T-2)

Witness Artery is a national vice president of the National Association of Postmasters of the United States and an active postmaster with 35 years of service to the Postal Service. He has expertise as a trainer in postal operations including Sarbanes-Oxley Compliance, WebBats, Sales and Service Associate, new postmasters, rate changes, enterprise data warehouse, and integrated retail terminal deployment.

His testimony discusses the use of the small office variance (SOV) tool as the basis for identifying post offices for closure within the context of the RAOI. While witness Artery believes that the SOV is a useful tool when properly implemented, it should not be used for the RAOI because it misses work credit.

He asserts that the SOV is not periodically updated to integrate new data, and therefore, is not current or accurate. Witness Artery claims that data deficiencies include scanning Express Mail, Priority, Parcel Select, Parcel Return, parcel tracking, cancelling, and Premium Forwarding. NAPUS-T-2 at 2. He criticizes the Postal Service for failing to use its scanning tools to measure actual workload, and instead uses the SOV, which fails to consistently illustrate workload data. He also has concerns that the SOV does not capture workload needed to validate Financial Form 1412 which is required for Sarbanes-Oxley Act Compliance. Additionally, he believes that SOV time standards are inconsistent with post offices operating with a point-of-service terminal environment. Overall, he urges the Commission to advise the Postal Service to use a more accurate and current method for evaluating a post office for discontinuance.

6. National Newspaper Association

Max Heath (NNA-T-1) testifies on behalf of the National Newspaper Association.

Witness Heath is now retired, but continues to consult with newspapers. Before retiring, witness Heath was vice president of Landmark Community Newspapers, Inc. He had a 45-year career in the community newspaper industry including working as a

reporter, editor, and general manager. He was VP/executive editor for 21 years, VP/circulation and postal for 23 years, and an acquisitions executive for 7 years. His company had 56 community newspapers, mostly mailed as Periodicals and Standard Mail. He currently serves as the chairman of the National Newspaper Association's Postal Committee, one of NNA's Mailers Technical Advisory Committee Representatives, and numerous Periodicals workgroups.

Witness Heath's testimony discusses areas where the closing of post offices is likely to impair the ability of newspapers to reach their readers. He makes several recommendations to help newspapers avoid damage from the Postal Service's discontinuance plans. He also makes recommendations to improve the gathering and response to customer input when a post office is being considered for discontinuance.

He believes that closing decisions should be made strategically. He asserts that direct mail entry revenue should be factored into closing decisions and innovative solutions should be put in place to avoid harm to community newspapers. As an example to such potential harm, he cites exceptional dispatch, which he claims authorizes postmasters to allow mailers to pay postage at one post office, but drop Periodicals bundles at smaller offices at the publisher's expense. Witness Heath also states a concern that newspapers could suffer loss of eligibility for in-county rates if the sole within county post office closes.

With respect to community input, witness Heath suggests the following (1) if community input cannot alter the outcome of a proposed discontinuance, the residents should be told so at the outset; (2) if there are criteria that must be met to ensure that a post office remains open, residents should be informed in advance of such criteria; (3) community meetings should be held in every instance unless a natural disaster or absence of a residential population exists; (4) the Postal Service should approach notification of community meetings with more zeal such as through a press release, a paid public notice in the newspaper, and an announcement on local radio;

(5) meetings should be scheduled on evenings or weekends; and (6) the Postal Service should collect a roster of those attending the meeting and announce the outcome of the proceeding to all when the final decision is made.

7. Frederick D. Foster

Frederick D. Foster (FDF-T-1) testifies on his own behalf.

Witness Foster has authored several reports regarding mail security. He believes that the RAOI is not a viable solution to the present and future condition of the Postal Service and is contradictory to the Postal Service's role in the digital age. In support of his testimony, he cites several United States Postal Service Office of the Inspector General reports.

C. Surrebuttal Testimony

The Postal Service filed surrebuttal testimony from David R. Ruiz (USPS-SRT-1) and James J. Boldt (USPS-SRT-2).

1. David R. Ruiz (USPS-SRT-1)

Witness Ruiz currently serves as an Operations Specialist, Field Operations Support, in the Office of Performance and Field Operations Support at Postal Service Headquarters. He has been in this position since July 2008. He is an integral part of the development and implementation of the Headquarters Variance Programs providing management models on complement, workhour, productivity, workload, route, and delivery analysis. These models calculate actual/earned performance based upon target productivities and trend performance from the unit to national levels. He also maintains, updates, and processes data from multiple postal systems into the variance applications. He began his employment with the Postal Service in 1976 as a casual clerk in the Santa Ana General Mail Facility and has held numerous positions in postal operations.

Witness Ruiz's testimony rebuts criticisms of witnesses Artery and Strong of the Postal Service's use of the SOV program to nominate certain postal retail facilities for discontinuance study under the RAOI. In his testimony, witness Ruiz explains the SOV program, which has been used nationally since FY 2009 for operations in Cost Ascertainment Group (CAG) H to L offices.³² He argues that while CAG H to L offices may lack certain equipment, workloads are recorded, tracked, reported, and updated with great accuracy using SOV, which verifies data accuracy weekly.

2. James J. Boldt (USPS-SRT-2)

To rebut portions of witness Strong's testimony, witness Boldt provides additional testimony. His rebuttal testimony counters that portion of witness Strong's testimony based on his observations and conversations with postmasters and community leaders who allege that the Postal Service has been taking steps to hinder meaningful community input.

In particular, witness Boldt's rebuttal testimony recounts his conversations with those involved on behalf of the Postal Service in the specific discontinuance studies identified by witness Strong. Witness Boldt then provides information gathered from field personnel responsible for the conduct of discontinuance studies whose conduct witness Strong criticizes in his testimony. Witness Boldt's rebuttal testimony also responds to witness Strong's testimony regarding changes in access to the Change Suspension Discontinuance Center (CSDC) database.³³

³² CAG H to L offices are the smallest postal retail offices.

³³ The CSDC tool is a web-based tool to track facilities undergoing discontinuance review.

IV. RETAIL ACCESS OPTIMIZATION INITIATIVE GOALS AND SUCCESS MEASUREMENT

In this chapter, the Commission reviews the goals and success measurement systems of the RAOI. First, the Commission reviews the goals that the Postal Service articulates for the RAOI to determine how well those goals and purposes will be met by implementation of the RAOI. Then the Commission examines the Postal Service's plan to measure success of the RAOI after implementation.

The Postal Service should make optimization of its retail network one of its primary goals for the RAOI. A sound understanding of optimization would allow the Postal Service to meet its goal of better aligning access with demand.

The Commission also finds that the Postal Service should attempt to coordinate and estimate the impact of all relevant, internal Postal Service initiatives that could have an effect on customer access prior to undertaking initiatives such as the RAOI. An internal review of all such initiatives and data collection plans, in place prior to implementation of the RAOI, would benefit the Postal Service in evaluating whether it is meeting its intended goals.

A. RAOI Goals

Postal Service initiatives should articulate clear purposes and achievable goals. In its filings, testimony, and institutional responses to interrogatories and information requests, the Postal Service expresses several goals for the RAOI. The Postal Service states:

The objective of the RAO Initiative is to evaluate certain categories of facilities within the postal retail network to determine whether their numbers can be reduced while the Postal Service still maintains postal facilities of such character and in such locations, that postal patrons throughout the Nation will, consistent with reasonable economies of postal operations, have ready access to essential postal services.

Tr. 1/264. Witness Granholm emphasizes that one of the purposes of the RAOI is to better align postal retail facilities with demand for such facilities. *Id.* at 619. The Postal Service also confirms that postal management is seeking to capture resulting cost savings from any facilities closed as a result of the RAOI,³⁴ but witness Boldt verifies that postal management has no predetermined cost savings target. USPS-T-1 at 13. Finally, the Postal Service intends through the RAOI to improve efficiency and enhance customer convenience in the provision of retail services through use of alternate access. *Id.*

As a secondary goal, the Postal Service states that its review process would be made more effective by choosing screening criteria that would “avoid an undertaking that might prove unwieldy to manage,”³⁵ and to “create a more diverse mix of retail facilities to study than in SBOC [Station and Branch Optimization and Consolidation Initiative].” *Id.* at 36.

In the Docket No. N2009-1 Advisory Opinion, the Commission found that the Postal Service should “clarify and better articulate the objectives of the Initiative to its internal management, to its customers, to Congress, and to the Commission.” Docket No. N2009-1 Advisory Opinion at 45-46.

In this case, the Postal Service states that “articulating the objectives has been a major step for understanding the previous efforts....” Tr. 1/604. Postal Service witness Granholm asserts that creating the CSDC management system allows for greater consistency in the application of discontinuance review. *Id.* at 604-05. The Postal Service promotes the initiative as a “retail access optimization” approach. However, the

³⁴ Request at 4.

³⁵ *Id.* at 151. Witness Boldt elaborates on what the Postal Service considers to be a manageable number of facilities for its district offices and headquarters to review. He states that the initiative of about 3,600 facilities allows review of about six offices per week per district, which means the Postal Service is reviewing, on average, 360 offices a week. Tr. 1/587, 494-95 (“And we felt that that was a manageable number, where they [the districts] could do a quality review.”)

Postal Service does not consider optimization of its retail network to be a goal of the RAOI. *Id.* at 441-42. The Postal Service should make optimization of its retail network one of its primary goals for the RAOI. A sound understanding of optimization would allow the Postal Service to meet its goal of better aligning access with demand. In chapter VI, the Commission discusses optimization approaches and how the Postal Service can use such tools to truly optimize its retail network.

The Postal Service should articulate clear, tangible, measurable goals for future nationwide service changes. Once such goals are in place, as discussed below in section B, the Postal Service should develop methods to measure, when initiatives are completed, how successfully it met its goals, including a measure of the effects on universal service. Goals for the RAOI, in particular, should reflect improvements to the Postal Service's retail network. Witness Granholm recognizes that the Postmaster General stated that the Postal Service does "intend to look at more post offices in the future" for potential closure, and would like to have the Commission's advice on the Postal Service's efforts. Tr. 1/612. This Advisory Opinion accommodates that request.

B. Measuring How Well the RAOI Meets Its Goals

The Postal Service indicates that it would like to measure whether it has met its goals with respect to the RAOI process, but does not identify a well-defined way for doing so. *Id.* at 620-21. It also does not intend to do any specific data collection or analysis as a result of the RAOI to determine if its goals are achieved. *Id.* at 269. It believes that its existing systems are collecting sufficient information for any future retrospective analysis. *Id.*

APWU suggests that the Postal Service should include a "post-implementation review" of the RAOI. APWU Brief at 29. APWU states that the Postal Service should examine whether its savings estimates were realized, and whether a significant amount of revenue leaked out of the system. *Id.* As an example, APWU cites to the post-implementation reviews currently conducted for area mail processing studies. *Id.*

The Postal Service contends that advice about a post-implementation review process would exceed the Commission's authority under section 3661. Postal Service Brief at 19. The Postal Service contends that had such a proposal been presented as testimony and opened to cross-examination, it could have explored the issue. *Id.*

The Commission found in the Docket No. N2009-1 Advisory Opinion that "an internal data collection plan would benefit the Postal Service in evaluating whether or not the initiative is meeting its goals..." and "emphasis should be placed on making the process more accurate so that proper determinations can be made in advance." Docket No. N2009-1 Advisory Opinion at 69. However, the Commission noted that its responsibility does not extend to ongoing review of the process, so no periodic reports would be required. *Id.*

In this case, the Postal Service states that in the time since the implementation of the SBOC Initiative,³⁶ local districts have continuously monitored customer service and associated costs. Tr. 1/140-41. However, the Postal Service states that no specific reporting responsibilities were created as a result of the Docket No. N2009-1 Advisory Opinion. *Id.* at 141.

Witness Granholm states that during this case, the Postal Service continues to work on the goal of coordination of other initiatives. *Id.* at 610. He uses, as an example, the Village Post Office concept brought forward in tandem with the RAOI. *Id.* Witness Granholm acknowledges that the Village Post Office concept is not "a robust piece of this package..." but states that the Postal Service has been looking into retail options for the future that will provide alternate access to customers. *Id.*

³⁶ The Station and Branch Optimization and Consolidation Initiative (SBOC), the Postal Service's most recent national retail optimization effort is reviewed in the Docket No. N2009-1 Advisory Opinion.

APWU criticizes the Postal Service for failing to consider ongoing initiatives such as the Delivery Unit Optimizations, Network Optimization Plan, changes in service standards, and the six-day to five-day delivery proposal. APWU Brief at 26.

As the Commission found in its Docket No. N2009-1 Advisory Opinion, the Commission finds that an internal review and data collection plan would benefit the Postal Service in evaluating whether the RAOI is meeting its intended goals. It is important for the Postal Service to have such a mechanism in place prior to implementation of the RAOI. Otherwise, the Postal Service cannot be sure that its data systems are collecting the right data to successfully measure an initiative's achievements. For example, the Postal Service should consider measuring (1) complaints and other customer satisfaction feedback related to the availability of access to postal services within areas affected by closures;³⁷ and (2) disaggregated cost and revenue data for discontinued and nearby facilities both before and after a closure.³⁸

The Commission also finds that the Postal Service should attempt to coordinate and estimate the impact of all relevant, internal Postal Service initiatives that could have an effect on customer access prior to undertaking initiatives such as the RAOI since such activities have an effect on whether the Postal Service is meeting its universal service obligations.³⁹

³⁷ The Postal Service states that “[i]n assessing the overall effectiveness of the RAO Initiative, the Postal Service will review financial information and customer feedback on both a national and regional basis.” Tr. 1/264. However, witness Boldt explains that local managers “will have that and should be analyzing that all the time, every day as part of our day-to-day business.” *Id.* at 456-57. Customer feedback should be reviewed at all levels.

³⁸ See Chapter VII for a complete discussion of related data quality recommendations.

³⁹ The Commission made a similar finding in its Docket No. N2009-1 Advisory Opinion that local officials responsible for discontinuance review should be made aware of other initiatives that have an impact on customer access taken concurrent with the SBOC Initiative. Advisory Opinion at 68.

V. DEVELOPMENT OF THE RAOI AND SCREENING CRITERIA APPLICATION

In this chapter, the Commission reviews the Postal Service's development and application of the RAOI screening criteria. It also discusses the parties' critiques of those criteria to evaluate whether the screening criteria further the goals.

A. RAOI Screening Overview

The Postal Service sought to create objective screening criteria that would allow it to identify post offices to review for discontinuance. Tr. 1/498. First, the Postal Service developed criteria to identify a limited number of facilities that could be reviewed by existing personnel. Then the Postal Service sought a mix of facilities and included post offices with relatively less revenue and relatively fewer workhours.⁴⁰ The Postal Service also identifies stations, branches, and retail annexes with lower revenue and available alternate access. In this section, the Commission reviews the screening criteria the Postal Service uses in the RAOI to determine how well the criteria further the goals articulated by the Postal Service. The section also addresses parties' legal and technical criticisms of the criteria.

In the RAOI, the Postal Service defines low workload and revenue post offices as those offices with a combined "earned workload,"⁴¹ of less than 2 hours per day and revenue of no greater than \$27,500. USPS-T-1 at 14-15. The Postal Service uses the SOV tool to calculate the amount of earned workload at post offices. The tool includes

⁴⁰ The Postal Service adjusted several values for the amount of workload and the amount of revenue to be included in the screening criteria to ensure application of the screening criteria resulted in a manageable number of offices to review. *Id.*

⁴¹ "Earned workload" as defined by the Postal Service is the assumed amount of time needed to perform the actual average daily mail distribution, post office box delivery, and retail window service activity at a facility. *Id.* at 15.

calculation of such workload⁴² as the time for collections and amount of mail to sort to P.O Boxes. *Id.* A post office is open, and a postmaster is paid, for a minimum of 2 hours per day even if the earned workload is less than 2 hours. *Id.* at 15-16. The Postal Service labels the low workload and revenue post offices as “category 1” in the RAOI. Postal Service Brief at 6.

The Postal Service also identifies stations, branches, and retail annexes with insufficient demand and available alternate access. USPS-T-1 at 16. For stations and branches, the Postal Service applies screening criteria of less than \$600,000 in revenue in FY 2010,⁴³ with five alternate access sites within 2 miles. The Postal Service identifies these stations and branches as category 2 in the RAOI. Postal Service Brief at 6. The Postal Service also identifies retail annexes with insufficient demand and available alternate access. USPS-T-1 at 16. For retail annexes, the Postal Service applies screening criteria of between \$600,000 and \$1 million in FY 2010 revenue with five alternate access facilities within one-half mile. The Postal Service also identifies retail annexes meeting the category 2 criteria (less than \$600,000 in FY 2010 revenue, lower FY 2010 revenue than the average annual revenue from FY 2008 and FY 2009, and five alternate access sites within 2 miles). The Postal Service identifies these retail annexes as category 3 in the RAOI.

Parties critique the screening criteria the Postal Service uses in the RAOI in two ways. First, several parties contend that the Postal Service’s screening criteria violate sections 101(b) and 403(c) of title 39. Second, parties criticize the Postal Service’s selection of specific screening criteria because they do not lead to optimal outcomes.

⁴² The Postal Service “assigns standardized quantitative values to various tasks performed at retail locations to determine earned workload.” Tr. 1/61. For example, sorting post office box letter mail to the boxes has a national productivity estimate of 5.56 feet per hour. USPS-T-1 at 15.

⁴³ The revenue in FY 2010 must also be less than the annual average of revenue earned in FY 2008 and FY 2009.

This section addresses the legal and technical arguments the parties raise concerning the Postal Service's screening criteria.

B. Parties Legal Critique of RAOI Low Workload and Low Revenue Screening Criteria

Parties state the Postal Service's low workload and low revenue screening criteria unlawfully identify post offices operating at a deficit, and rural post offices.

Parties contend two sections of the law are relevant. 39 U.S.C. 101(b) provides:

The Postal Service shall provide a maximum degree of effective and regular postal services to rural areas, communities, and small towns where post offices are not self-sustaining. No small post office shall be closed solely for operating at a deficit, it being the specific intent of the Congress that effective postal services be insured to residents of both urban and rural communities.

39 U.S.C. § 403(c) provides:

In providing services and in establishing classifications, rates, and fees under this title, the Postal Service shall not, except as specifically authorized in this title, make any undue or unreasonable discrimination among users of the mails, nor shall it grant any undue or unreasonable preferences to any such user.

This section summarizes the parties' arguments that the Postal Service's RAOI screens for low workload and low revenue post offices are not legal.

1. Parties Contend Screening Criteria Identify Post Offices Operating at a Deficit

APWU contends that the RAOI low workload and revenue screen applied to post offices is "a proxy for selecting post offices that are operating at a deficit." APWU Brief at 9. APWU states that the minimum postmaster salary (for the minimum of 2 workhours) plus rent "is always going to be greater than \$27,500. Thus, by design, the RAOI selects facilities that are operating at a deficit." *Id.*

The Public Representative criticizes the Postal Service's low workload and low revenue screens as a "formalized pretext" that identifies small and rural post offices operating at a deficit. PR Brief at 1.

Witness Klingenberg asserts that the data provided by the Postal Service in USPS-LR-N2011-1/NP3 overstate the cost of operating a retail facility because the cost includes the total cost for all postal functions⁴⁴ for each facility. PR-T-2 at 6. He analyzes 2,646 low workload and revenue post offices where matching data were available. *Id.* at 7. Witness Klingenberg concludes that 98 percent of the RAOI low workload and low revenue post offices were not profitable.⁴⁵

Valpak contends that the screening criteria produce results that comply with title 39 taken as a whole. It points out the post offices with 2 hours of earned workload generate average revenue of \$21,476, average total operating expense of \$76,902, and average annual operating deficit of \$55,426. Valpak Brief at 7. These figures indicate that for each dollar of revenue collected at the low workload post offices, the Postal Service spends an average of \$3.58. *Id.* at 8. Valpak does not criticize the RAOI screen for capturing offices operating at a deficit, but considers this ratio to reflect the "relatively high cost and inefficiency of selling postage and collecting revenue via the retail postal network." *Id.* at 9.

Valpak references section 403(a) directing the Postal Service to "provide adequate and efficient postal services..." and section 403(b) that requires the Postal Service "to establish and maintain postal facilities...consistent with reasonable economies of postal operations...[that provide] ready access to essential postal

⁴⁴ Examples include delivery functions, administrative functions, and mail processing functions.

⁴⁵ The term "profitable" in this context is a comparison of operating cost and operating revenue for each facility. An "unprofitable" facility has a greater operating cost than operating revenue.

services.” *Id.* at 7. Valpak suggests that an operating deficit for all the low workload and revenue post offices appears inconsistent with these provisions of the law. *Id.*

The Postal Service contends that there is no basis to conclude that the RAOI targets retail facilities operating at a deficit. Postal Service Brief at 16-17. The Postal Service acknowledges that “most Post Office locations currently are operating at a deficit...” and that it may review offices for discontinuance in accordance with the law, so long as it does not close a post office solely for operating at a deficit. *Id.* at 16.

2. Parties Contend Screening Criteria Specifically Identify Rural Post Offices

APWU contends that the RAOI is not legal because it “leads to the study and likely closure of postal retail facilities in rural areas, communities and small towns where post offices are not self-sustaining....” APWU Brief at 9. APWU states that the RAOI results in a diminution of service contrary to the requirement that the Postal Service provide “a maximum degree of effective and regular service.” *Id.*

APWU witness Morrison uses the U.S. Census Bureau’s definition of “urbanized area” to delineate whether a facility serves an urbanized or non-urbanized area. APWU-T-1 at 5-6. Using U.S. Census Bureau data, witness Morrison compares control groups of urbanized areas and non-urbanized areas with the urbanized and non-urbanized areas in the RAOI. *Id.* at 5-8.

AUSPL contends that the Postal Service’s low workload and low revenue screens for post offices “targeted rural post offices.” AUSPL Brief at 5. AUSPL, citing Public Representative witness Klingenberg, states that of the 2,059 low workload and revenue offices that can be linked with census blocks, 99.6 percent serve at least one rural block. AUSPL contends that there is a correlation between rural post offices serving low population bases and low workload. *Id.*

NAPUS contends that the Postal Service admits that the RAOI screen tends to identify post offices located in smaller towns or rural areas. NAPUS Brief at 5. However, NAPUS states that the Postal Service does not have a working definition for rural areas, which “at best, underscores the lack of consideration given to the RAOI’s effect on... rural, remote, and non-contiguous populations.” *Id.* at 6.

NLP states that the low workload and revenue post offices screened by the RAOI are low workload and revenue because they are located in very small communities. NLP Brief at 11. NLP questions whether screening for low revenue and workload post offices is consistent with the Postal Service’s mission to serve rural areas with a maximum degree of service. *Id.* NLP states that the workload measure is primarily driven by volume, which would tend to be lower in low income or rural areas. *Id.* at 32.

Public Representative witness Klingenberg contends that the low workload and revenue screen disproportionately captures both unprofitable post offices and post offices serving rural areas. PR-T-2 at 15-16. The Public Representative labels the RAOI low workload and revenue screen as a “formalized pretext for identifying and eliminating small and rural post offices operating at a deficit.” PR Brief at 1. The Public Representative contends that by failing to have a definition for rural post offices, the Postal Service cannot be sure whether its actions are in accordance with title 39, which contains specific provisions relating to rural post offices. *Id.* at 3.

The Postal Service contends that the RAOI includes a diverse selection of facilities, ranging from rural areas and small towns to stations and branches in urban and suburban areas. Postal Service Brief at 17. The Postal Service notes that if the facilities under review in the RAOI are combined with the facilities that were considered in the Station and Branch Optimization and Consolidation Initiative considered in Docket No. N2009-1, the split between rural/small town and urban/suburban facilities is relatively even. *Id.* at 32.

APWU, AUSPL, and the Public Representative contend that the RAOI violates 39 U.S.C. 101(b) because it predominantly screens for post offices that are operating at a deficit and located in rural areas. APWU Brief at 9; AUSPL Brief at 4; PR Brief at 9-10. NAPUS makes the same argument, but adds that the RAOI violates section 101(b) because the Postal Service does not “provide a maximum degree of effective and regular postal services to rural areas, communities, and small towns where post offices are not self sustaining....” NAPUS Brief at 3.

The Postal Service contends that the RAOI is structured so as not to violate 39 U.S.C. 101(b). Postal Service Brief at 16. The Postal Service states that the screening criteria do not include “operating at a deficit.” Therefore there is no basis for asserting that the RAOI targets such facilities. *Id.* at 16-17. Valpak notes that section 101(b) does not “bar...considering economic realities...in the closing of a post office.” Valpak Brief at 5.

3. Commission Legal Analysis of Section 101(b)

The Commission disagrees with the Postal Service’s contention that there is no basis for asserting that the RAOI screening criteria identify post offices operating at a deficit. Credible evidence in the record demonstrates that the RAOI low workload and low revenue screening criteria tend to identify post offices that operate at a deficit. However, as discussed below, the Commission does not consider identifying low workload and low revenue post offices for further review as contrary to the policies of title 39.

Section 101(b) provides:

The Postal Service shall provide a maximum degree of effective and regular postal services to rural areas, communities, and small towns where post offices are not self-sustaining. No small post office shall be closed **solely** for operating at a deficit, it being the specific intent of the Congress that effective postal services be insured to residents of both urban and rural communities.

39 U.S.C. 101(b) (emphasis added). The Commission agrees with Valpak that no part of section 101(b) prohibits the Postal Service from considering the financial condition of a post office. In fact, section 403(d)(2)(A) requires the Postal Service to consider, *inter alia*, the economic savings that would result from the closing or consolidation of a facility.

APWU, AUSPL, the Public Representative, and NLP arguments that the entire process fails to satisfy the statute would only hold true if the low revenue and low workload screening criteria were used as the sole factor to determine if a post office would be discontinued.

The discontinuance review process, which tracks the PO-101 Handbook, is the final step in the RAOI process. This review process must take into account the considerations required by section 403(d)(2). As discussed in chapter VIII of this Advisory Opinion, the Commission advises the Postal Service that the PO-101 Handbook and associated procedures are to be applied as designed and intended, as a meaningful step in the process that takes into account all the relevant statutory considerations including the section 101(b) requirement of “a maximum degree of effective and regular postal services to rural areas....”

C. Parties Contend Screening Criteria Unduly Discriminates

APWU witness Morrison testifies about the correlation of certain socio-economic demographics to the facilities identified by the RAOI screening criteria. Her testimony considers both rural and urban areas in turn. This section summarizes legal concerns arising from that analysis.

1. APWU Discusses Minor Differences Between RAOI Rural Areas
and Non-RAOI Rural Areas

APWU witness Morrison identifies 2,891 postal facilities identified by the RAOI screening criteria for discontinuance review that fall outside of urban areas as defined by the U.S. Census Bureau. APWU-T-1 at 8. The witness compares certain demographic variables available from the U.S. Census Bureau of the rural RAOI facilities to a control group of other rural facilities not part of the RAOI. *Id.*

Witness Morrison states at a 93.0 percent confidence interval that 21.9 percent of control group households earn less than \$20,000, while 24.3 percent of households served by RAOI facilities earn less than \$20,000. *Id.* Overall, witness Morrison states that slightly more than half, 57 percent, of rural areas containing RAOI facilities have a higher share of low income households than the control group. *Id.* Witness Morrison identifies some statistical outlier areas where the share of low income households is more than double the average found in the control group. *Id.* at 9.

Witness Morrison also considers vehicle ownership statistics from the U.S. Census Bureau, stating that in the control group, 6.1 percent of households do not own vehicles, while the average for areas containing RAOI facilities is 6.3 percent. *Id.* at 10-11. Again, witness Morrison identifies statistical outliers where there are a significantly higher proportion of households without vehicles in certain groups of households served by RAOI facilities. *Id.* at 11-12.

Witness Morrison also compares the average age of members of households in the RAOI facility areas with the control group. At a “99.999 percent confidence interval,” witness Morrison finds that 15.9 percent of the rural control are persons aged 65 and older, whereas the RAOI facility areas have an average of 16.4 percent of persons aged 65 and older. *Id.* at 12.

Finally, witness Morrison compares ethnicity in the control group and RAOI facility areas. Witness Morrison demonstrates that the control group has an average of 13.9 percent minority residents, whereas the RAOI facility group area has 12.9 percent minority residents. *Id.* at 13.

APWU does not contend that the characteristics of communities served by the rural facilities selected in the RAOI suggest a disparate impact based on demographics. *Id.* at 8. However, APWU notes that areas served by RAOI facilities tend to have a “somewhat higher percentage of low income households and older residents aged 65 and over.” *Id.*

AUSPL notes the correlation between rural post offices and low workload and concludes the RAOI screening criteria have a discriminatory impact on rural areas. AUSPL Brief at 5.

2. APWU Discusses Differences Between RAOI Urban Areas and Non-RAOI Urban Areas and Alleges Disparate Impact

For urban areas, witness Morrison compares income in RAOI facility areas versus a control group. While the control group has an average of 19.4 percent of households with incomes less than \$20,000, the RAOI group has an average of 27.0 percent of households with income less than \$20,000.

Likewise, witness Morrison examines vehicle ownership in the two groups. The control group average for households that do not own a vehicle is 10.8 percent, whereas the RAOI group average is 21.1 percent. APWU-T-1 at 16.

Witness Morrison states that on average 14.1 percent of the population in the control group is aged 65 and older, and for the RAOI group that percent is 13.4 percent. *Id.* at 17-18.

Finally, witness Morrison states that the average minority population in the control group was 26.3 percent, compared to 45.1 percent in the RAOI group. *Id.* at 19. She contends that a review of the demographic data for RAOI facilities in urban areas may indicate a disparate impact on lower income households, households that do not own cars, and minority residents. *Id.* at 14.

APWU contends that an analysis of the RAOI leads to the conclusion that it violates 39 U.S.C. 403(c). APWU Brief at 11. APWU elaborates that the RAOI's selection of facilities that have a higher concentration of low income and elderly households, as well as the selection of facilities that are disproportionately in rural areas with smaller populations, is clearly discriminatory. *Id.* at 14-15. APWU states that a less discriminatory process, or a defined target of cost savings may keep the discrimination from being "undue" or "unreasonable," but neither scenario is presented in the Postal Service's plan, resulting in undue and unreasonable discrimination. *Id.* at 15. Similarly, AUSPL and NAPUS contend that the RAOI violates section 403(c). AUSPL Brief at 4-5; NAPUS Brief at 4.

The Postal Service contends that the "RAOI does not consider impacts on customers by itself. The RAOI only nominates a group of offices using, for the first time, the newly established authority of headquarters officials...." Postal Service Brief at 66. The Postal Service disagrees with witness Morrison's use of census data to examine the disparate impact of the RAOI, stating that such an effort is "skating on thin ice that would open up any optimization effort and any discontinuance study to charges that it is targeting customers by the very criteria which they happen to reflect. This is especially so when it is wielded for purposes of analyzing, as witness Morrison does, possible disparate impact." *Id.* at 67.

Specifically, the Postal Service states that there is no basis to assert that the RAOI is unduly or unreasonably discriminating among mail users or granting an undue or unreasonable preference to such users under 39 U.S.C. 403(c). *Id.* at 17. Valpak

contends that the Postal Service should not be required, under the auspices of section 403(c), to “maintain thousands of post offices with cost-revenue ratios...which deviate so far from the average for all retail counters....” Valpak Brief at 10.

3. Commission Legal Analysis of Section 403(c)

Information in the record suggests that the RAOI screening criteria may inadvertently impact certain categories of persons more than others.

APWU, on the basis of witness Morrison’s analysis, contends the variance in socio-economic demographics between the control group and RAOI group in urban areas is enough to find undue discrimination. However, variation in impact over geographic area or demographics does not equate to undue discrimination. The Postal Service is not required to provide a uniform level of service to every area of the country. The Postal Service may implement policies that have a varied impact so long as the variation is based upon reasonable economic and efficiency limitations and is not unduly discriminatory. See, USO Report at 23. No intervenor articulates the difference between variation in service and undue discrimination.

The Commission finds insufficient evidence in the record to conclude that the RAOI, as applied as a screening procedure, unduly or unreasonably discriminates among users of the mail, or grants an undue or unreasonable preference to any user. See, 39 U.S.C. 403(c).

The Commission is concerned, however, that evidence presented in this docket suggests the RAOI screening criteria, if separated from the discontinuance procedures, may inadvertently have a disparate impact on vulnerable populations.

The Postal Service should include alternate screening criteria or develop an optimization model as discussed in chapter VI that takes into account

socio-demographic data. The Postal Service should be sensitive to the issue of potential disparate impact during the discontinuance phase of the RAOI.

D. Parties' Critique of Post Office, Station, Branch, and Retail Annex
Screening Criteria

Several parties criticize the Postal Service's screening criteria for failing to include constraints for alternate access in the case of low workload and low revenue post offices. With regard to stations, branches, and retail annexes, parties contend that the Postal Service does not include the complete or optimal criteria to measure access availability. This section discusses the parties' technical critiques of the screening criteria used for post offices, stations, branches, and retail annexes.

1. Lack of Any Distance to Alternate Access Sites for Low Revenue
and Low Workload Post Offices

The Postal Service's RAOI screens stations, branches, and retail annexes with criteria that include distance to the nearest alternate facility. See USPS-T-1 at 16. Low workload and revenue post offices, however, have no such constraint; workload and revenue are the only screening criteria used in the RAOI for post offices. *Id.* at 15.

Anecdotally, Postal Service witness Boldt provides aggregated and averaged information on distance for facilities with less than \$100,000 in annual walk-in revenue. *Id.* at 11-12. He asserts that 90 percent of the 13,494 retail locations with less than \$100,000 in annual walk-in revenue for which there is latitude and longitude data available are within 10 miles of the nearest retail location. *Id.* at 11. It is unclear, however, whether such averages would hold true for the RAOI facilities, especially the low workload and revenue post offices.

CSRL states that because the subset of facilities used to create the chart is different from the subset screened in the RAOI, the "information is entirely useless in

determining the impact that the RAOI and subsequent post office closures or consolidations may have on residents and communities....” CSRL Brief at 8.

The Postal Service admits that over 1,000 of the 3,652 post offices screened by the RAOI are more than 10 miles from the nearest post office. Tr. 1/542-43. The Postal Service, in response to an information request, provides a library reference that includes driving distance to the nearest alternate facility for all 3,580 facilities listed for review. See USPS-LR-N2011-1/12; USPS-LR-N2011-1/NP7.

While the Postal Service is not required by law to maintain a defined proximity to retail facilities, witness Klingenberg offers several examples of foreign posts with legal requirements governing proximity to retail access that could be used as a benchmark for the Postal Service in its screening procedures. PR-T-2 at 14-15. Witness Klingenberg describes the geographic proximity requirements for Australia, Canada, and France, which all require that certain percentages of the population reside within fixed distances to postal retail facilities. *Id.*⁴⁶

Witness Klingenberg states that nearly 30 percent of the RAOI post offices are more than 10 miles from the nearest post office.⁴⁷ Witness Klingenberg suggests that by using 10 miles as an upper bound, the Postal Service could save significant effort at

⁴⁶ In Australia, 85 percent of the rural population must reside within 4.7 miles of a facility, and 95 percent of the urban population must reside within 1.6 miles of a facility. In Canada, the proximity requirement is expressed as total population, with 98 percent of the population within 9.3 miles, 88 percent within 3.1 miles, and 78 percent within 1.6 miles. France requires that 90 percent of its population reside within 3.1 miles of a postal facility. These foreign posts have different universal service obligation structures than the United States Postal Service. The Commission discussed the different monopoly and universal service laws in its previous universal service obligation report. See USO Report at 85-100. Some countries offer subsidies to the post for operating facilities to meet the universal service obligations. See, e.g. *id.* at 108-109.

⁴⁷ The Public Representative notes that the Postal Service witness Klingenberg publicly stated that only 11 percent of all offices with less than \$100,000 walk-in revenue were more than 10 miles from the nearest post office. PR Brief at 19.

the discontinuance review by eliminating over a thousand facilities from consideration. *Id.* at 20.

2. Lack of Robust or Complete Data in Screening for Low Workload and Low Revenue Post Offices

As discussed in chapter VI, the data provided by the Postal Service in support of the RAOI and in response to discovery requests is lacking in consistency, quality, and completeness.

With regard to the screening process, NLP and witness Artery criticize the Postal Service's use of the SOV database to screen for a precise measure of workhours. NLP Brief at 31; NLPM-T-2 at 3. NLP states that the SOV measurements are "inherently unreliable" and "intended to be used for staffing purposes...to get a very rough idea of the number of people need[ed] to staff a facility." *Id.* at 31-32 (internal citations omitted). It also disputes the assumptions the SOV tool builds in concerning average revenue per transaction and average time per transaction to compute earned time. *Id.* at 32. NLP states that the average revenue per transaction is likely lower than the Postal Service assumes, and that changing that assumption would significantly increase the earned hours calculation. *Id.*

The Postal Service, relying on witness Ruiz's testimony, disputes that the SOV tool is inaccurate and states that it is updated weekly and accurately measures activity in both small and large offices. Postal Service Brief at 7; see also USPS-SRT-1 at 3-4, 6-8.

NLP contends that the Postal Service does not consider non-revenue transactions, such as visits to post office boxes, in its use of earned workload and revenue as a proxy for consumer demand. NLP Brief at 34-35. In addition, the Postal Service does not develop or consider data on other sources of revenue, for example, Standard Mail, Periodicals, returns, or commercial mailers. *Id.*

NNA and witness Heath contend that the Postal Service did not adequately consider non-sales activities, or alternate revenues such as business mail entry and exceptional dispatch by community newspapers, in formulating the RAOI screen. NNA Comments at 3; NNA-T-1 at 6-7.

The Postal Service states that it only tracks current operating-hour data, and does not generally have data for hours of operation from previous years. Tr. 5/1776. The Postal Service contends that there is no business need for tracking past years' hours of operations. *Id.* at 1777-78. The Postal Service did provide archival "snapshots" of operating hours for retail facilities listed in the SOV database in 2009, 2010, and 2011 late in the proceeding in response to the Chairman's bench questions regarding measuring the impact of past reductions in hours of operation and declines in revenues. Tr. 6/1916. The Postal Service, however, was not able to correlate any decline in revenues with corresponding declines in hours of operation.

The Postal Service acknowledges that given the aggressive schedule of the proceedings, data production by the Postal Service proved uneven. Postal Service Brief at 78. The Postal Service contends that most of the data sought in the proceeding was irrelevant to the RAOI itself, as it is only relevant once a facility undergoes a discontinuance study. *Id.* at 79.

3. Screening Criteria of Geometric Distance Used for Stations, Branches, and Retail Annexes

The Postal Service explains that geometric⁴⁸ ("great circle") distances are taken into account in two instances during the RAOI selection process. Geometric distances are factored into the RAOI when calculating the nearest alternate access for (1) stations

⁴⁸ Geometric (great circle) and "as-the-crow-flies" distances are not technically synonymous. However, parties use the terms interchangeably in this docket. Geometric distances, as used in this Advisory Opinion, refer to "as the crow flies" distance as opposed to driving distance.

and branches with insufficient demand (earned revenue of less than \$600,000); and (2) retail annexes with insufficient demand (earned revenue of less than \$1 million). USPS-T-1 at 14-17. For stations and branches, the RAOI screens for facilities with insufficient demand that are within 2 miles of at least five alternate access sites. Similarly, the RAOI selects retail annexes with insufficient demand in two categories: one that meets the same criteria as stations and branches (revenue under \$600,000 and five alternatives within 2 miles) and another category with revenue between \$600,000 and \$1 million and five alternate access sites within one-half mile. *Id.*

CSRL criticizes the Postal Service use of geometric distance between two points to calculate the distance to the “nearest neighbor.” CSRL Brief at 7. CSRL and witness Musto contend that geographic distance “does not accurately represent the added distance that postal patrons may have to travel to reach the next closest” facility. *Id.*; see also CSRL-T-1 at 8. CSRL states that driving distance is a more realistic measure of the burden on customers to obtain service than geometric coordinate distance. Tr. 3/874.

NLP contends that use of geographic coordinate distance rather than driving distances is a significant defect in the RAOI. NLP Brief at 28.

The Postal Service responds that driving distance is used in the discontinuance review of each individual facility, and was, therefore, not necessary in the screening process. Postal Service Brief at 64; see also Tr. 1/236. Witness Boldt elaborates that the Postal Service uses the Electronic Facilities Management System to measure driving distances between facilities, and that the result “will be checked against local management knowledge and other driving distance mapping software such as Bing, or odometer tests, if necessary.” Tr. 1/235-36.

4. Alternate Service Location Offerings

Witness Musto's analysis shows that 17 percent of the stations, branches, and retail annexes identified by the RAOI have alternate access sites consisting solely of stamps on consignment. CSRL-T-1 at 7. His analysis also shows that excluding stamps on consignment, 70 percent of the stations and branches identified in the RAOI would be excluded for having insufficient alternate access. *Id.* The Postal Service acknowledges that the closest alternate facility to a facility under discontinuance review may not be a facility that offers full service. Tr. 1/81.

APWU contends that the Postal Service does not adequately consider the types of services offered at its proposed alternate access channel, the Village Post Office. APWU Brief at 10.

NLP asserts that neither Village Post Offices nor rural carriers provide realistic alternatives to small rural post offices, pointing out that Village Post Offices provide only two services while a post office provides 36. NLP Brief at 21.

5. Overlap of RAOI and Nearest Neighbor Facilities

The Postal Service does not examine the correlation between the "nearest neighbor" facilities and the facilities screened by the RAOI. Tr. 1/236. Therefore, facilities identified as an alternate access site in the RAOI may themselves be screened by the RAOI and subject to simultaneous discontinuance review. The Postal Service asserts that, "if RAO[I] candidate facilities are sufficiently close in proximity that each is the 'nearest neighbor' to the other, this fact will be taken into account in the review process in determining the fate of the two facilities." *Id.*

6. Commission Analysis of Parties' Critiques of Postal Service's Screening Criteria

Evidence in the record provides constructive criticism of the Postal Service's RAOI screening criteria. Intervenors demonstrate that the Postal Service should improve its screening process by both broadening the scope of the screening criteria and improving the quality of the data subject to the screening criteria. Distance to the nearest alternate facility should be considered for all facilities. See e.g., USO Report at 85-100, Appendix E.

The Commission advises the Postal Service to use the most relevant and robust data available when utilizing screening procedures. Insufficient demand for postal service may not correlate with revenue levels. See chapter VI, discussing the Yezer Model. Evidence demonstrates that the SOV tool is a resource to identify workload. However, other evidence demonstrates that the SOV does not consider non-revenue transactions such as post office box visits, exceptional dispatch for local periodicals, or alternate revenue transactions such as business mail or returns. The Commission suggests the Postal Service account for non-revenue transactions that reflect community usage of a post office to allow better analysis during the screening process. Recent reductions in the hours of operation of facilities may have caused reduced revenues. Such changes should also be taken into account.

The RAOI screening criteria for stations, branches, and retail annexes includes a measure of the distance to the nearest alternate access sites. However, that distance is calculated "as the crow flies" and not as driving distance. Evidence in the record demonstrates that the most relevant distance available is driving distance, as it accurately measures the added inconvenience to consumers. The Commission acknowledges that the Postal Service considers driving distance during the discontinuation process, but advises the Postal Service to utilize it in the screening process as well.

Record testimony demonstrates that a significant percentage of the alternate access sites used by the Postal Service do not offer a complete range of postal services.⁴⁹ The Postal Service should add a constraint to the screening criteria that gives recognition to the need for at least one alternate access facility that is a full service facility.

Evidence also suggests that some RAOI facilities may be clustered geographically or objectively isolated from other facilities. The Postal Service maintains that the discontinuance procedure is the appropriate stage to consider such factors. However, with additional screening criteria, the Postal Service could eliminate from further review many facilities that are inappropriate to close, avoiding unnecessary work, expense, and community upheaval. For example, the Postal Service should consider more robust variables, such as variables that eliminate facilities that are objectively isolated or clustered in one particular area.

Overall, intervenor critique and record evidence suggests that a more systematic approach, such as the optimization models discussed in chapter VI of this Advisory Opinion would make the process more transparent and reduce the burden on local management of conducting unnecessary discontinuance reviews.

⁴⁹ Stamps on consignment appear to be the most common alternate access available.

VI. USE OF ALTERNATE METHODS TO ACHIEVE GOALS

A. Introduction

It is worthwhile for the Commission to review potential alternatives to the RAOI process to determine if there are more efficient ways to accomplish the Postal Service's goals for the RAOI while maintaining the Postal Service's statutory commitment to its universal service obligation. As a result of this review, the Commission finds that it would be valuable for the Postal Service to consider available optimization methods and tools that could be used in the process of selecting facilities for discontinuance review.

The Commission suggests that the Postal Service consider using optimizational modeling techniques and GIS software and spatial modeling tools for mapping and optimization purposes.

The use of travel distance instead of geometric distance would be an improvement in optimizing or screening the retail network.

The Postal Service would also find it worthwhile to analyze a broad set of socio-economic variables in connection with GIS studies for optimization of its retail network. Optimization methods of this sort should consider operational changes within a given facility as opposed to focusing exclusively on whether or not to close it.

Optimization from the customer and supplier sides is especially relevant to the Postal Service because the Postal Service's statutory mandate requires it to balance efficiencies with preserving ready access for postal patrons. See, section 403(b)(d). See *also supra* chapter II, Procedural History, section B Statutory Obligations. In accordance with traditional optimization modeling, there is typically an optimization

function (that minimizes or maximizes output) and a set of constraints.⁵⁰ Further, in examining optimization modeling with economic principles of supply and demand,⁵¹ it is customary to consider optimization strategies from the point of view of the customer/consumer as well as the service supplier/producer.⁵²

It is worthwhile to review the RAOI using optimization principles because the Postal Service admits, in spite of the word “optimization” in the title, the RAOI is not an optimization initiative in the traditional economic sense. Tr. 1/441-43. As discussed in chapters III and VI, the RAOI identifies four distinct categories of postal retail facilities for potential discontinuance. Under the largest category, post offices are selected for discontinuance review based on low workload. These screening criteria identify facilities with both low revenue and low earned workload. USPS-T-1 at 15. This may be considered a one-sided optimization since it only takes into account the interests of the Postal Service as a service supplier. It does not include any constraints for alternate access or otherwise place restrictions on availability or accessibility of alternate facilities for consumer access.⁵³ This raises a significant concern as this category of postal facilities includes the vast majority of the RAOI facilities.⁵⁴

⁵⁰ See, e.g., Intriligator, M.D., *Mathematical Optimization and Economic Theory*. NY: Prentice Hall, 1971; Bronson R., Naadimuthu G. *Schaum's Outline of Theory and Problems of Operations Research*. McGraw-Hill, 1997.

⁵¹ See Samuelson, P.A., Nordhaus, W.D. *Economics*. New Delhi: Tata McGraw-Hill, p.45-106; Colander D.C. *Microeconomics*. N.Y.: Irwin, 2004 at 83-156.

⁵² See, e.g., The Digital Economist. The Optimization Principle. <http://www.digitaleconomist.org/optimization.html>.

⁵³ An alternate facility is a postal facility available for customer use if a particular postal facility is discontinued.

⁵⁴ The share of ‘Low workload post offices’ was 77 percent of the original 3,648 RAOI post offices (Docket No. N2011-1 USPS LR N2011-1/2; Docket No. N2011-1, USPS LR N2011-1/11).

The second and third screening categories, representing approximately 15 percent of RAOI facilities,⁵⁵ apply similar screening approaches to different types of facilities. The second category consists of station and branch postal retail facilities, while the third category consists of retail annexes. The screening process for both categories takes into account both the interests of consumers and suppliers through the use of constraints. “Insufficient demand” or low revenue reflects the supplier/Postal Service’s interests. Consumer interests are taken into account because the postal facilities selected for discontinuance review must be located within particular distances⁵⁶ from alternative access sites.⁵⁷

To the extent that the RAOI screens can be considered an optimization initiative, the Postal Service’s analysis appears to be focused on the viewpoint of the service supplier. A better practice would be to take into account modern optimization techniques that consider both consumer and supplier viewpoints.

Below, the Commission reviews the two modern optimization methodologies presented in this case for consideration as alternatives to the RAOI:⁵⁸ the GIS⁵⁹ analysis presented by witness Waters, and a demand modeling optimization approach

⁵⁵ The fourth category consists of postal retail facilities that are not directly part of the optimization selection process since they consist of facilities that are already undergoing a discontinuance study. For purposes of this optimization analysis, no optimization criteria are set up here. The Postal Service confirms that these facilities are “locally initiated ‘non-RAO’ discontinuance candidates.” See USPS-T-1 at 17.

⁵⁶ For stations, branches, and retail annexes with annual revenue less than \$600,000, this distance cannot be more than 2 miles; for retail annexes with annual revenue between \$600,000 and \$1 million, this distance cannot exceed one-half mile. USPS-T-1 at 16.

⁵⁷ It is an open question as to whether taking into account consumer interests in this manner is sufficient.

⁵⁸ See, e.g., Tr. 4/1588 (“[T]he range of optimization possibilities not discussed by the Postal Service is broad.”); Tr. 4/1669 (“[T]he Postal Service should use the information and methods available to it, a variety of them, to determine the best outcomes.”).

⁵⁹ GIS allows data analysis to be performed in ways that reveal relationships, patterns, and trends in the form of maps, globes, reports, and charts. See <http://www.gis.com/>. For more information on available methods and techniques see, e.g., Fisher M.M., Getis A. Handbook of Applied Spatial Analysis: Software Tools, Methods and Applications. Springer 2009.

first proposed by the Postal Service's USPS-OIG and Anthony Yezer (Yezer) entitled *Analyzing the Postal Service's Retail Network Using an Objective Modeling Approach*, June 14, 2010 (Yezer Model).⁶⁰ Each optimization approach and model is discussed and evaluated below.

1. Witness Waters Optimization Approach

- a. The Waters GIS Analysis

Witness Waters evaluates the RAOI proposal to screen facilities for discontinuance review. Waters' analysis uses ArcGIS and other databases, including the road networks and population data from the U.S. Census Bureau to review the impact of closing post offices in the state of Kansas.⁶¹

His analysis provides an alternate method of closing post offices that, according to his analysis, would have less of an impact on the population while allowing for more closures than those proposed by the Postal Service.

Witness Waters first constructs Thiessen polygons around the post offices such that any location inside the polygon is closer to the post office within the polygon than any other post office.⁶² These Thiessen polygons serve as a proxy for the total service

⁶⁰ Tr. 2/820-21; U.S. Postal Service Office of Inspector General, *Analyzing the Postal Service's Retail Network Using an Objective Modeling Approach*, RARC-WP-10-004, June 14, 2010.

⁶¹ Witness Waters chose the state of Kansas because "it represented a manageable task within the time constraints that we were working under. It was essentially a proof of concept as to one methodology that could be used to help optimize the postal retail network and maximize the population's access to the service." Tr. 3/1325. Additionally, "the topography of Kansas is ideal for this type of an analysis [and] geographical scientists like using states like Kansas because they are flat, and the topography...does not make the application of the models more difficult or demanding. It is also a nice shape. It is roughly square.... Maryland would be a very difficult State to analyze on its own, and we wouldn't want to do that. The boundary -- the ratio of boundary to area would be huge." *Id.* at 1369-70. Witness Waters recommends that his analysis be performed throughout the entire country.

⁶² Thiessen polygons are polygons whose boundaries define the area that is closest to each point relative to all other points. They are mathematically defined by the perpendicular bisectors of the lines between all points.

area for post offices within Kansas. His analysis demonstrates that the average service area before proposed closure is 127.7 square miles, while the average service area after closing all of the RAOI facilities in Kansas would be 161.3 square miles, an increase of 26 percent.

Building upon his average service area analysis, witness Waters conducts a location allocation analysis of the 647 post offices in Kansas to evaluate how closely the RAOI-identified facilities correspond with an “optimized solution” for retail locations in Kansas.⁶³ For this optimization analysis, witness Waters uses an algorithm to minimize the weighted distance to each post office. This analysis determined the optimum location of 513 post offices in Kansas, the number of post offices that would remain open if the Postal Service closes all the Kansas postal facilities on its RAOI list. Witness Waters’ location allocation analysis shows that, if the primary goal is to minimize the average distance of the population served by its nearest post office, the closure of the RAOI-identified facilities in Kansas would produce a less than optimal result, and a different set of closures would achieve greater savings in travel time and travel distance for consumers. PR-T-1 at 10-11.

Witness Waters uses the fact that the Postal Service is considering closure of 134 postal retail facilities within Kansas as the baseline for his analysis. He attempts to determine if closing a different set of facilities will achieve a greater savings in travel time and travel distance for post office patrons than closing those facilities proposed by the Postal Service. He identifies different postal facilities for closure than those the Postal Service proposes to close as part of the RAOI, and finds that half of the RAOI facilities on the Postal Service’s proposed closure list within the state of Kansas should remain open to minimize travel time and distance for residents. Additionally, witness Waters finds that, provided that the appropriate postal facilities remained open, he could

⁶³ Witness Waters’ conducted optimization “from the point-of-view of the population’s access to post offices.” Tr. 3/1324.

ensure that the average resident would be closer to a post office even if 33 more postal facilities were closed than those on the RAOI list.

b. Commission Analysis

Witness Waters' analysis focuses on access and convenience to consumers by using distance to postal retail facilities as the criteria for determining the location and number of facilities. This approach differs from the Postal Service's RAOI screening criteria which rely heavily on facility revenue. Witness Waters' analysis demonstrates that there are other important criteria that the Postal Service could include that would significantly improve its screening procedures. Witness Waters' analysis provides a roadmap for one way of screening facilities by taking into account consumer access. Any similar future initiatives of the Postal Service to reduce facilities should include screening criteria that better account for consumer access concerns.

In its current form, witness Waters' analysis contains limitations, and it should not be viewed as satisfactory for future use by the Postal Service. In particular, witness Waters' optimization approach seeks to optimize access,⁶⁴ and is important because it better takes into account consumers' interests than the Postal Service's screening criteria. On the other hand, witness Waters' optimization approach does not consider the interests of the service supplier as it does not take into account the Postal Service's revenues and costs. A better balance between the interests of the service supplier and consumers' interests should result in a greater overall benefit to society.

Additionally, while optimization of population access to postal retail facilities is important, postal consumers are not limited to area residents. The Commission agrees

⁶⁴ In his analysis, witness Waters does not consider alternative access locations, such as Village Post Offices. Tr. 3/1358. On cross-examination, he states that he believes that taking into account such locations would be possible. *Id.* The Commission suggests that in the future, any spatial analysis done with respect to postal retail facilities include consideration of alternative sites such as Village Post Offices and other alternative access sites, recognizing that as discussed in chapter IX, the services offered at each alternative access channel differ.

with witness Boldt that “many retail units are used by persons who work or shop nearby, but do not necessarily live in the community surrounding a retail facility.” Tr. 1/64. Optimization of access only for residents is a simplification that should be avoided in future analysis.⁶⁵

The use of actual travel distance instead of geometric distance would also be an important improvement. Tr. 3/1369-70. GIS software includes tools that allow similar analyses to be performed for driving distance to other access sites.⁶⁶ Incorporating driving distances into the optimization would help provide results that better reflect consumer needs and the information reviewed in the facility-specific discontinuance reviews.⁶⁷

The Commission suggests that the Postal Service consider using GIS software and spatial modeling tools for mapping and optimization purposes.⁶⁸ There are a variety of currently available GIS software systems that contain useful tools for mapping, analysis, and transportation demand forecasting.⁶⁹ Using such software, the

⁶⁵ On cross-examination, witness Waters stated that his analysis could be altered to take into account the work locations or other customer preferences in optimizing facility location. Tr. 3/1345-46, 1361. Classical transportation models, such as gravity models, almost always consider both residents as well as people who work in the area. See, e.g., Travel Demand Forecasting: Theory and Concepts. The Gravity Model. <http://www.princeton.edu/~alaink/Orf467F08/The%20Gravity%20Model>.

⁶⁶ Witness Waters indicated that such additional analysis would be complex, but manageable, given the Postal Service's staff. *Id.* at 1394.

⁶⁷ The Postal Service states that “for purposes of facility-specific USPS Handbook PO-101 discontinuance review, driving distance will be used to determine the proximity of the retail location nearest the one being studied for discontinuance.” Tr. 2/759.

⁶⁸ Although it appears that the Postal Service currently uses ArcGIS software for mapping facilities, it should also consider more advanced mapping methods and tools, including those used by witness Waters in his analysis and those he suggests for future study. PR-T-1 at 12.

⁶⁹ These tools range from MS Mappoint that allows mapping and some basic spatial data analysis to more advanced modeling and forecasting software such as ArcGIS by ESRI and TransCAD by Caliper.

Postal Service could analyze the postal network and retail facilities as a transportation system based on principles and methods of transportation planning.⁷⁰

In addition, the Postal Service would find it worthwhile to analyze socio-economic variables in connection with GIS studies of its retail facilities. The analysis by witness Waters could work as an example and meaningful starting point for further analysis. With respect to the RAOI, the Postal Service has admitted that it “has not conducted any survey seeking to assess whether persons with distinct or various demographic characteristics attribute a different level of importance to postal access.” Tr. 1/64. However, given witness Waters’ testimony, the Commission recommends that the Postal Service perform a more extensive analysis of a broader set of socio-economic variables in the areas of the proposed closures.

2. United States Postal Service Office of Inspector General’s
Sponsored Research

a. The Yezer Demand Model

On June 14, 2010, the USPS-OIG released a report that describes an economic model that it states could help the Postal Service optimize its retail network. Tr. 2/820-21. The USPS-OIG contends that this type of economic modeling would add a consistent set of economic criteria for locating and sizing retail facilities to the Postal Service’s retail network planning. As a result, the USPS-OIG sponsored research by George Washington University professor of economics, Anthony Yezer, to develop an economic model that could inform the debate. Professor Yezer is a nationally recognized expert in real estate location and applied economic analysis.

⁷⁰ See, e.g., Lane R., Powell T.J., Prestwood Smith P. *Analytical Transport Planning*. London: Duckworth 1974. Witness Waters testifies that the Postal Service’s retail network is a transportation system network. Tr. 3/1324. Developing traffic/transportation analysis zones is an important part of urban transportation planning and traffic forecasting. More information is available on multiple websites of metropolitan government organizations. See, e.g., Metropolitan Washington Council of Governments, http://www.mwcog.org/store/item.asp?PUBLICATION_ID=400; Denver Regional Council of Governments, <http://gis.drcog.org/datacatalog/content/transportation-analysis-zones-taz-2832>.

In this effort, he attempts to determine what the Postal Service's retail network would look like if it were to be optimized based on optimal public facility location and the best practices used by private industry. Yezer builds a quantitative economic model to estimate the optimal number, size, spacing, and staffing of Postal Service retail facilities within any specific area based on the current academic research on public facility location and the best practices of private industry. His model demonstrates how to locate and size facilities by attempting to match the demand for retail services to the cost of providing them. The USPS-OIG finds that "the model serves as a powerful guide and first-level screening device, directing planners to areas where retail capacity is misaligned with customer demand." USPS-OIG Cover Letter to the Report on the Yezer Model at 2.

Yezer's Model estimates the amount of revenue a facility will generate based on the size of its market area and local characteristics such as the number of households, the number of employees working at businesses in the area, the amount of nearby competitors, and whether the retail unit is in a large urban area. One important notation from Location Economics⁷¹ that Yezer's Model follows is that people tend to buy less the farther they must travel to a retail location as the travel time adds to their purchase costs. This notation from Location Economics, and other relevant information, is entered into the model's demand equation to produce a revenue estimate for a particular location.⁷²

Yezer's model also determines the cost of meeting the retail demand. It finds that the important cost relationships are based around the number of windows. In particular (1) the number of windows needed to serve the revenue expected to be generated by a retail unit; (2) the number of employees needed to staff those windows

⁷¹ See, e.g., Losh A. The Economics of Location. Yale University Press, 1954.

⁷² For example, Yezer's Model estimates an urban retail unit with a market area of 10 square miles, serving 10,000 households and businesses employing 1,000 workers, and having one competitor nearby will generate \$932,952 in annual revenue. Yezer Model at 7.

and their labor cost; and (3) the amount of facility space required depending on the number of windows and the cost of facility space in a particular area.

Yezer's Model uses revenue and cost components to determine the location of retail facilities to maximize net revenue. The model solution also determines the optimal number of retail employees, number of retail windows, and square footage.⁷³

As part of his analysis and in creating a revenue estimation equation, Yezer finds that the following socio-economic and geographical factors influenced expected revenue for a given area: (1) total employment in the market area of facility; (2) total households in the market area; (3) median household income in the area; (4) private mail employment in the area; (5) competing private mail establishments in the market area; and (6) the market radius of the facility.⁷⁴ Yezer also finds that the effect of different variables on demand and expected revenue is not the same in large and small urban areas.⁷⁵

More specifically, Yezer finds that the number of households and the total employment in the market area have the highest impact on postal demand and expected revenue while household income has a modest impact. He also finds that the size of the market area and the presence of competitors had a negative impact on postal demand and expected revenue.

While Yezer's Model has promise, according to the USPS-OIG, it does not currently take into account the following relevant criteria: (1) the fact that Postal Service

⁷³ Witness Klingenberg states that the Postal Service should consider using Yezer's objective modeling approach to minimize cost and maximize revenue. PR-T-2 at 17.

⁷⁴ Twenty-one thousand eight-hundred-ninety-eight data point observations for Postal Service facilities and ZIP Code locations were used to develop the model. Yezer Model at 19.

⁷⁵ For example, in large urban areas employment is more important than number of households. *Id.* at 20.

retail and delivery operations are frequently co-located;⁷⁶ (2) unlike many private retailers, the Postal Service is required to offer uniform pricing across the country for most of its products; and (3) the Postal Service network is part of the national and cultural infrastructure where it is the only outpost of the Federal government, and in some small towns, the post office is considered the anchor of the community. All of these factors affect the task of optimizing the Postal Service's retail network.

b. Commission Analysis

Given that one of the Postal Service's goals for the RAOI is to better align service with demand, the Commission believes it is necessary for the Postal Service to consider demand modeling optimization techniques in future optimization efforts. Yezer did not develop his model to support the instant filing. Had he done so, he might have extended his model to include factors in addition to economic criteria. Nonetheless, it should prove a useful tool for the Postal Service in planning the locations of its retail network operations. While some difficult data and policy issues must be addressed before the model can realize its full potential as applied to the Postal Service's retail network, the Yezer Model could provide a base allowing the Postal Service to create an economic model to consider where to optimally locate postal retail facilities to maximize postal retail revenue, and minimize cost, while fulfilling its universal service obligations.

The Commission also agrees with Yezer's conclusion that optimization of the retail network should consider operational changes within a given facility as opposed to focusing exclusively on whether or not to close it. It may make sense to adjust the operating hours of a facility or increase or decrease the number of retail windows available to the public to maximize net revenue or provide appropriate access to postal services.

⁷⁶ Chapter VII includes a discussion of the difficulties isolating the cost of retail functions from other functions at a postal retail facility.

Below, the Commission identifies major areas in which the Yezer Model could be improved as an optimization model. Most importantly, those areas include recognizing the Postal Service's statutory service obligations through relevant socio-economic and geographic information as part of the optimization model. The Commission also discusses the Postal Service's practice of co-locating retail and delivery functions and how they affect the Yezer Model's accuracy. Further, the Commission discusses other limitations of the Yezer Model, including its estimation of market area and its use of static data. Finally, the Commission applies the Yezer Model to the set of RAOI facilities to determine how well the RAOI facilities perform compared to the revenues predicted by the Yezer Model.

(1) Recognizing Statutory Obligations in a Demand Model by incorporating Socio-Economic and Geographic Information

One of the Yezer Model's most valuable features is that additional variables can be incorporated into the model to deal with constraints imposed by policymakers. For example, the Yezer Model does not take into account the Postal Service's service obligations. The Commission finds that a model to optimize the locations of postal retail facilities will be most useful if it takes into account the Postal Service's service obligations.

The model will be more beneficial for planning changes to the Postal Service's retail network if takes into account accessibility for consumers. The Yezer Model does not effectively consider consumers' proximity to postal facilities, while witness Waters' analysis is exclusively based on optimizing accessibility. Both of these interests should be appropriately considered, weighed, and ideally, incorporated into one comprehensive modeling approach.

Including socio-economic and geographical constraints in the Yezer Model would also help account for the Postal Service's service obligation. Some characteristics that

could be included in the model are (1) a maximum travel distance from any point of the market area to a nearest neighboring retail facility; (2) characteristics of “postal activity” of the facility, including total number of post office boxes or number of post office boxes rented per capita/household; (3) characteristics of physical and financial ability of household members to reach neighboring Postal Service facilities if the retail services in the current market area are discontinued;⁷⁷ and (4) population/household and employment density in the market area. In addition to providing clarity and transparency to the public and stakeholders on the appropriate locations of postal retail facilities, more quantifiable information in this respect will allow for more robust and meaningful results from the Yezer Model.⁷⁸

A corollary to the Yezer Model is his finding that certain socio-economic variables have a strong statistical relationship to expected revenue. Yet, within the framework of the RAOI, the Postal Service does not consider socio-economic/demographic characteristics while selecting postal facilities for discontinuance review. Witness Boldt testifies that “it would not be correct to assume that such economic or demographic profiles of nearby residents (such as may be reflected in U.S. Census Bureau records) will be reviewed under the RAOI or that the PO-101 Handbook requires the retrieval and examination of publicly available census data.” *Id.* at 65-66.⁷⁹

⁷⁷ For example, the availability of vehicles per capita/household, availability of public transportation, average age of the residents/share of residents ages 65 or older, and income levels/share of households at or below poverty level.

⁷⁸ The Postal Service’s universal service obligation is codified as reasonably broad policy statements. As witness Klingenberg points out, several European, North American, and Australian postal systems have specific requirements for the location of such facilities based on geographic proximity. PR-T-2 at 14-15. With the RAOI considering approximately 3,650 post offices for closure and the potential for significant numbers of post offices to be considered as candidates for closure in future years, Tr. 1/62, this is an appropriate time for stakeholders and policy makers to consider more specific standards, including associated costs and how they might be funded.

⁷⁹ Witness Boldt also states that “[r]etail transaction data and management intelligence about the facility’s retail traffic are more on point about who uses a facility and for what transactions.” Tr. 1/64.

Yezer's findings are in contrast to Postal Service arguments in this case and practices with respect to the RAOI and discontinuance studies. *Id.* at 64, 66. Instead, the Postal Service's discontinuance procedures focus on local management's knowledge of the retail customer base. *Id.* at 63. Including socio-economic variables would more appropriately introduce consumer interests into the analysis. At the same time, the Yezer Model not only allows the analysis to include both consumer and supplier interests, it also demonstrates a close relationship between expected revenue and socio-economic variables.

Parties suggest there is a link between expected revenue at a postal facility and socio-economic factors.⁸⁰ The Commission performed an econometric analysis to determine the relationship, if any, between walk-in revenue and several socio-economic variables.⁸¹ The resulting regression equation shows a very strong relationship between walk-in revenue and three socio-economic variables—households, average income,⁸² and employment.⁸³

In addition to demonstrating a strong relationship between walk-in revenue and socio-economics, this estimated regression equation is important for the following

⁸⁰ See PR Brief at 10-13, 15, 22; NLP Reply Brief at 24-28; APWU Brief at 26-27; NLP Brief at 26-28, 36.

⁸¹ The analysis uses 2008 as the base year. Data on walk-in revenue was collected by each facility from USPS-N2011-1-NP-21. Since walk-in revenue data in library reference USPS-LR-N2011-1/NP21 does not contain information on 5-digit ZIP Codes, this data was matched with the data from the facility database provided in library reference USPS-LR-N2011-1/NP2. Walk-in revenue data is also aggregated by 5-digit ZIP Code for this regression model. The Commission's regression analysis was performed using SAS Enterprise 4.2. To avoid any bias related to the shape of the postal market area, the Commission performed its analysis on the 5-digit ZIP Code level. For more details on the Commission's analysis, see library reference PRC-N2011-1-NP-LR1.

⁸² "Average income" is adjusted gross income per filed tax form.

⁸³ The Commission set up 99 percent confidence intervals, and all variables are significant at the 0.01 level. T-tests and an F-test proved that estimated regression coefficients are highly statistically significant, and a variance inflation factor test ensures that there is no multicollinearity observed between the explanatory/dependent variables. All explanatory variables have a positive impact on revenue. See library reference PRC-N2011-1-NP-LR1.

reasons: (1) it allows for calculation of the optimal revenue as a function of socio-economic characteristics of the area (on 5-digit ZIP Code level) and allows for comparison of actual and optimal revenue; and (2) it provides information about how closing facilities in a particular ZIP Code area would affect other facilities. If a postal facility is closed there should be a replacement postal facility in the same ZIP Code area that would assume the functions of the closed one and support the optimal walk-in revenue. This should prove useful to the Postal Service for retail planning purposes at the 5-digit ZIP Code level.⁸⁴

Based on the relationships found by the Yezer Model and the Commission's own econometric regression analysis, the Commission recommends the Postal Service incorporate socio-economic factors in determining where to locate postal facilities. Both the Yezer Model and the Commission's independent analysis demonstrate that socio-economic factors enhance the overall methodology of selecting postal facilities for discontinuance review and potential closure.

(2) Postal Service Practice of Co-locating Retail and Delivery Functions

As the report accompanying the Yezer Model notes, one of the main data quality issues with determining the cost of retail facilities is the Postal Service's co-location of delivery operations with retail operations in many instances. For example, distribution and window clerks not only engage in non-revenue activities at the window such as retrieving packages and held mail, but they also may work part of the day in the back office supporting activities unrelated to retail transactions. Clerks may sort and distribute mail to carriers, P.O Boxes, and Caller Service sacks. In these instances, it is challenging to separate the costs of providing retail service from the costs of delivery operations. By determining the best way to separate these costs for both retail and

⁸⁴ For urban areas, it might be useful to perform analysis at a smaller geographical level (e.g., traffic zones inside of 5-digit ZIP Code areas).

operational planning purposes, the Postal Service could improve its estimates of the cost savings.

(3) Potential Additional Improvements to the Yezer Model

The Yezer Model could be improved for use as a Postal Service optimization tool. First, the model estimates the market area of a particular postal facility based on a circular shape. The model then uses the radius of the market area as half the distance between each existing facility and its nearest neighbor. This method creates overlaps, especially in urban districts, and leaves other regions uncovered, especially in rural areas. Professor Yezer suggests “it would be useful to consider the precise shape of the market area.” Yezer Model at 20. The Commission believes that any method of defining market area should attempt to conform, as closely as practicable, to the principles of transportation planning. These principles include ensuring that there are no gaps or overlaps between market areas. Witness Waters’ approach of dividing geographic areas into polygons with the postal facility in the center follows these principles, whereas Yezer’s circular technique does not. Second, Yezer used data for a single year in his model, although he notes that the model “can transform projections of future population and employment into estimates of future demand for services.” *Id.* at 46. This improvement would enable the model to take into account areas experiencing population growth as well as those experiencing population declines.

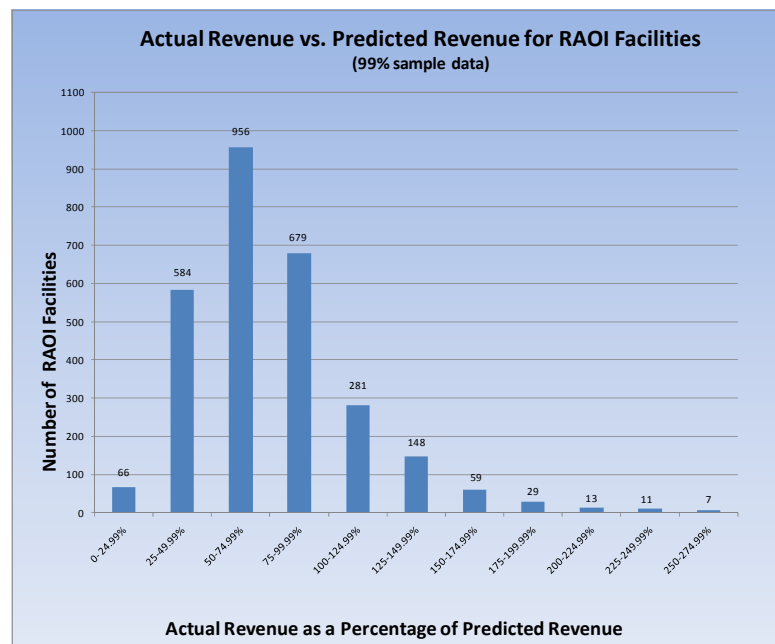
(4) Application of the Yezer Model to RAOI Facilities

The Commission analyzed how the RAOI facilities perform in terms of revenue compared to what the Yezer Model predicted their respective revenues would be. The Commission reviewed the facilities on the RAOI list and compared the actual revenue of those facilities to the expected revenue as estimated by the Yezer Model. The Commission used the same dataset that Yezer used in his analysis,⁸⁵ and found that

⁸⁵ Library reference USPS-N2011-1-NP12.

approximately 80 percent of the analyzed RAOI facilities have revenue less than predicted. In contrast, about 5 percent of the facilities generate revenue that are at least 50 percent higher than the Yezer Model predicts.⁸⁶ Chart VI-1 displays these findings.

Chart VI-1



Based on this analysis, the Commission suggests that the five percent of RAOI facilities with revenue far above 'Yezer Model predicted' expected revenue should be given special consideration. This would include a more detailed analysis of such facilities, including, for example, a comparison between their actual characteristics (revenue, costs, number of windows, employees, etc.) and those characteristics of the estimated Yezer optimal facility within the same population density category in

⁸⁶ These 5 percent of the 2,857 analyzed RAOI facilities include 119 facilities with an actual revenue between 150 and 275 percent of the predicted revenue (see five right columns on the bar chart). They also include 22 facilities not present on the chart, with revenue of at least 275 percent higher than the predicted revenue. For more details on the methodology and steps of the Commission's analysis, see library reference PRC-N2011-1-NP-LR2.

accordance with the Yezer Model urban groupings and findings.⁸⁷ The Postal Service should consider using this and similar methods to estimate revenue leaving the system due to discontinuances.

⁸⁷ The Yezer Model optimal results by urban type of area are summarized in the report prepared by the Office of Inspector General USPS-OIG Cover Letter to the Report on the Yezer Model at 8.

VII. DATA QUALITY ISSUES AND REVENUE/COST IMPLICATIONS

A. Introduction

The Postal Service states that one of its goals for the RAOI is to “capture the resulting cost savings if a determination is made to close a postal retail facility.” Request at 4. In a typical nature of service advisory opinion, the Commission analyzes the costs and benefits of the initiative to determine if the Postal Service has accurate financial data to make informed decisions. See, e.g., Docket No. N2009-1 Advisory Opinion.

The Commission finds that the Postal Service should develop methods to better align its databases to comprehensively measure cost, revenue, workload, location, and other salient details of its retail network.

Reasonably sound estimates of the financial effects of any nationwide or substantially nationwide initiative that changes the nature of postal services would help the Postal Service evaluate such initiatives.

An accurate estimate of the likely cost savings of closing the RAOI facilities would be valuable for a complete and informed evaluation of the costs and benefits of the RAOI proposal.

The Commission attempts to develop such a financial analysis in this case; however, data quality issues prevented the Commission from being able to construct a reasonably reliable estimate of the potential financial effects of the RAOI. Instead, the Commission recommends several ways for the Postal Service to improve the quality of its data collection and databases so that future accurate financial analysis of Postal Service initiatives is possible. These improvements will also help to better inform the Postal Service management’s operational and strategic decision-making.

Before discussing these data quality concerns and recommendations, the Commission first discusses the parties' positions regarding the revenue and cost implications for the RAOI and data quality issues.

B. Parties' Positions

The Postal Service estimates that the annual operating expenses of the RAOI facilities are just over \$200 million. Tr. 1/421. Thus, according to the Postal Service's calculations, closing all the RAOI facilities would save approximately \$200 million.⁸⁸

Witness Klingenberg attempts to estimate both the cost of the Postal Service's entire retail network as well as potential cost savings of closing certain RAOI facilities. To arrive at his estimate of the cost of the entire retail network, he reviews the Postal Service's FY 2010 Cost Segments and Components report and aggregates costs for selected cost segments and components related to the retail network. Witness Klingenberg estimates that the cost of the Postal Service's retail network is \$5.8 billion. PR-T-2 at 5-6. He also provides an alternative estimate of the cost of the retail network utilizing findings from an article written by several postal scholars.⁸⁹ This suggests estimated costs of \$4.5 billion for the entire retail network.⁹⁰

Witness Klingenberg also attempts to estimate the cost savings of closing certain RAOI facilities. However, he admits that his ability to perform a financial analysis of the RAOI facilities is limited due to unavailable or problematic data. First, data are available to verify the accuracy of only 2,909 of the total 3,652 postal retail locations in the

⁸⁸ The Postal Service did not provide any data to support this calculation.

⁸⁹ *The Cost of Universal Service in the U.S. and its Impact on Competition*. Cohen, Robinson, Waller, and Xenakis (2002).

⁹⁰ The article estimated the cost of the "counter" function as 6 percent of the Postal Service's FY 1999 costs. Witness Klingenberg updates this cost ratio for FY 2010 operating costs (\$75.6 billion) producing an estimated expense for FY 2010. PR-T-2 at 6.

RAOI.⁹¹ Witness Klingenberg asserts facility operating costs provided by the Postal Service overstate the costs of operating certain retail facilities because data provided by the Postal Service for stations, branches, and retail annexes include additional expenses other than those incurred by offering retail services. PR-T-2 at 6.

Consequently, witness Klingenberg's analysis of cost savings only considers certain low workload post offices. He concludes that he cannot develop a meaningful cost analysis for the other categories of the RAOI.⁹² Witness Klingenberg's analysis suggests a maximum potential savings to the Postal Service of \$209 million per year if the Postal Service decides to close all 2,646 low workload post offices for which data are available. *Id.*

In its brief, Valpak also puts forth a financial analysis of the low workload post offices. Based on data provided in connection with this case, Valpak asserts that the average revenue of low workload facilities is \$21,476 and the average total operating expenses of those post offices is \$76,902. Therefore, the average annual operating deficit for those post offices would be \$55,426. Valpak Brief at 7.

C. Commission Analysis

An accurate estimate of the likely cost savings of closing the RAOI facilities would be valuable for a complete and informed evaluation of the costs and benefits of the RAOI proposal. To obtain this information, the Commission set out to provide robust estimates of the total cost of the retail network, the total operating cost for the RAOI facilities, the revenue for the RAOI facilities, and the expected cost savings from closing all RAOI facilities. In order to provide an accurate estimate of each of these components, the Commission asked the Postal Service to provide the total cost and revenue of each retail facility in the network, disaggregated between retail and nonretail

⁹¹ Ninety-one percent of the verified offices fall in the RAOI's low workload category.

⁹² Witness Klingenberg does not attempt to provide a cost savings estimate for the approximately 700 remaining facilities in the RAOI.

operations. The Postal Service was unable to provide the data for two reasons. First, in instances of primary and subordinate facilities, such as a main post office and affiliated stations and branches, the data are aggregated for all facilities and provided as one number. Second, cost data by facility are not disaggregated between retail and nonretail functions.⁹³

Given these data limitations, to estimate the total cost of the retail network, the Commission used the direct and indirect costs for window service and postmasters from the Postal Service's Cost Segment and Component Report. These costs overstate the actual cost of retail window service, however, because postmaster costs are not disaggregated between retail and nonretail functions.

For the same reasons, the Commission was unable to accurately estimate the cost of retail operations in the RAOI facilities, or the cost savings that might be realized if all RAOI facilities were to be discontinued. A more in-depth discussion of the analysis performed by the Commission, and the data issues encountered, is found in Appendix B.

The Postal Service should develop methods to better align its databases to comprehensively measure cost, revenue, workload, location, and other salient details of its retail network. It should also strive to make reasonably sound estimates of the financial effects of any nationwide or substantially nationwide initiative that changes the nature of postal services.

For retail network initiatives such as the RAOI, the Postal Service should ensure it has accurate, disaggregated cost and revenue data for each retail facility. Data collection and database quality improvements will provide the Postal Service, stakeholders, and policy makers with a better understanding of the financial

⁹³ Nonretail functions include delivery and mail processing.

consequences of such initiatives. To better conform with the policies of title 39, the Postal Service should consider implementing the following improvements to its data collection and database:

- The Postal Service should disaggregate cost data to allow the estimation of facility-specific operating costs. Data on operating costs for most stations and branches are currently aggregated with the “main” post office and other subordinate stations and branches. Similarly, operating costs for retail annexes are aggregated with the processing functions of the retail annex’s main plant. This makes it very difficult to determine the actual costs associated with a particular facility.
- The Postal Service should disaggregate revenue data to allow the estimation of facility-specific revenue and net revenue. Data on walk-in and total revenue for most stations and branches are currently aggregated with the “main” post office and other subordinate stations and branches. Similarly, operating revenue for retail annexes are aggregated with the processing functions of the retail annex’s main plant. In addition, some sources of retail revenue are excluded from walk-in revenue.⁹⁴ This makes it very difficult to determine the actual retail and total revenue associated with a particular facility.
- The Postal Service should disaggregate retail costs from other operating costs. Costs for facilities are currently aggregated such that retail costs cannot be disaggregated from total operating costs. This makes it very difficult to determine the portion of total operating costs attributable to the retail function of a facility.

⁹⁴ See, e.g., Tr. 1/163 (Automated Postal Center revenue is not included in walk-in revenue).

- The Postal Service should standardize the identification of facilities across databases. Facility names and finance numbers are not consistent across databases.⁹⁵ Such discrepancies make analysis difficult and significantly impair the results. Data analysis would be improved with standardized names and finance numbers in order to avoid manual review of every data entry.

The Commission recognizes that there may be cost implications for these recommended data improvements. The Postal Service must balance any increased costs against the financial and other benefits of having robust data upon which to base its operational decisions, including future retail network optimization initiatives.

⁹⁵ For example, certain types of cost and revenue data are collected and stored in a way that does not uniquely identify particular facilities. Different types of data are collected and stored by a 6-digit finance number, which is not a unique identifier. Others are stored by a 10-digit unit finance number or a 7-digit facility ID, which are unique identifiers. For those databases which do use the 10-digit unit finance number or a 7-digit facility ID, these unique identifiers are not always the same for the same facilities across databases.

VIII. DISCONTINUANCE PROCEDURES AND THE PO-101 HANDBOOK PROCESS

The Postal Service states that facilities selected by the RAOI screening criteria are then reviewed for closure using the discontinuance procedures found in the PO-101 Handbook. Request at 6. The PO-101 Handbook contains public notice and comment procedures and implements the Postal Service's statutory authority to close or consolidate a post office found in 39 U.S.C. 404(d).⁹⁶ The PO-101 Handbook procedures are a crucial step in the process, because the Postal Service identifies this step as where it satisfies all applicable statutory obligations.⁹⁷ Request at 9-10; Postal Service Brief at 16, 20-21, 25-26, 66; Tr. 1/192-93, 247-48, 261.

After analyzing the PO-101 Handbook, the Commission finds it to be a reasonable approach to implementing the Postal Service's authority to close and consolidate facilities under title 39. The Postal Service must monitor the PO-101 process to assure adequate notice and an opportunity to comment are actually provided to affected customers; actual consideration is given to specific community concerns; decision makers understand and properly apply the policies of title 39; and the process is continually improved. These provisions are vital to assuring meaningful public participation in the discontinuance process.

The Postal Service could provide greater transparency by providing an explanation of why certain groups of facilities have been removed from consideration during the discontinuance review.

⁹⁶ The PO-101 Handbook is located at 39 CFR Part 241. The current final rule was published on July 14, 2011 and corrected on July 22, 2011. See 76 FR 41413 (July 14, 2011) and 76 FR 43898 (July 22, 2011).

⁹⁷ Chapter II, section B of this Advisory Opinion identifies many of the relevant statutory obligations the Postal Service must satisfy.

The Commission finds that the Postal Service should continue to train local managers and review discontinuance recommendations to ensure community input received during the discontinuance review is given appropriate consideration and weight. The Postal Service may find it beneficial to query local managers that conduct discontinuance reviews as to the areas where additional training or information would be useful. The Postal Service could conduct random comprehensive audits of discontinuance review packages in order to capture best practices and avoid future problems.

The Commission finds that the Postal Service should train individuals responsible for implementing the PO-101 process and making determinations as to which facilities to close in identifying legal issues for review and applying applicable statutory standards.

More direction is needed in the discontinuance process to develop information on local community conditions.

To improve notice, the Postal Service should provide web access to information on the status of individual facilities undergoing discontinuance review as well as information concerning the comment deadline and public meeting date.

The Postal Service most recently updated its discontinuance procedures in July 2011. See USPS-LR-N2011-1/1. The discontinuance process must achieve multiple objectives, including ensuring adequate notice is provided to affected customers, providing customers with an opportunity to comment, demonstrating community concerns are considered, ensuring statutory compliance, and generating an administrative record that reflects a consistent and thorough process. *Id.*

In response to complaints that surfaced in local press coverage of the discontinuance process and a letter of inquiry from the Commission, the Postal Service

states that it has adopted “an open door policy allowing attendees” to photograph or record community meetings so long as such action is not disruptive. Tr. 6/1903-04.

The Commission’s review of the Postal Service’s use of the PO-101 Handbook discontinuance process is complicated by several factors. First, the PO-101 Handbook is a relatively new process that has only been in effect since July 2011. Second, record evidence discussing the procedures in the PO-101 Handbook has limited value in predicting whether the process, as applied by local managers, will operate in conformance with the policies of title 39.

Overall, the Commission finds that the PO-101 Handbook appears to be a reasonable approach to implementing the Postal Service’s authority to close and consolidate facilities under title 39. The Postal Service still must monitor the PO-101 process to assure adequate notice and an opportunity to comment are actually provided to affected customers; actual consideration is given to specific community concerns; decision makers understand and properly apply the policies of title 39; and the process is continually improved.

A. Provision of Notice, Information and Opportunity to Comment

1. Parties’ Concerns

APWU contends that the Postal Service’s PO-101 process “does not permit meaningful engagement with the community over its concerns.” APWU Brief at 16. APWU notes that community meetings are sometimes scheduled at inconvenient times. *Id.*, citing Tr. 1/369. Further, APWU contends that the Postal Service should be required to provide notice of the closure and public meeting in the local newspaper. *Id.* APWU contends that the current process does not allow the community and the Postal Service to have a dialogue and improve the process; rather, the Postal Service receives written comments and holds the community meeting simultaneously. *Id.* APWU suggests greater transparency could be achieved by providing web access to

information such as the Postal Service's response to customer comments and the time and location of the public meeting. *Id.* at 29.

CSRL notes that the solicitation of public input is especially important to the PO-101 process. CSRL Brief at 8. CSRL encourages the Postal Service to "make every effort to ensure that the public is given ample opportunity to voice its opinions and to ensure that the public interest is represented." *Id.*

NAPUS and NLP contend that the PO-101 Handbook is inconsistently applied, as evidenced by the scheduling of and Postal Service conduct at community meetings. NAPUS Brief at 8, 10; NLP Brief at 34, 42.

The Postal Service asserts that its PO-101 Handbook specifies when notice must be given to ensure compliance with the provisions of title 39. Postal Service Brief at 21. Likewise, the Postal Service notes that the PO-101 Handbook describes the type of public notices that must accompany every determination, and who should receive those notices. *Id.* at 25. The Postal Service concludes that the PO-101 process "provides multiple channels and multiple opportunities for public input." *Id.* at 26.

2. Commission Analysis

The Commission finds that the provision of adequate notice and opportunity to comment are vital to assuring meaningful public participation in the discontinuance process. The Postal Service should provide web access to information on the status of individual facilities undergoing discontinuance review as well as information concerning the comment deadline and public meeting date. The Postal Service promotes its website as an alternative way for customers to access postal services, and it could also be used to ensure customers are provided with more information on how to participate

in the process. The Postal Service should also post a description of the discontinuance process similar to the notice it mails to affected customers.⁹⁸

B. Consideration of Community Concerns

1. Parties' Concerns

APWU contends that the Postal Service's responses to customer comments appear inconsistent, and in some cases boilerplate. APWU Brief at 17-23. APWU notes that the Postal Service does not study how it will accommodate the no fee post office boxes in RAOI post offices. *Id.* at 17. APWU provides a specific example from Docket No. A2011-99, where the Postal Service received a comment that there was a large Spanish speaking population in the area. See Docket No. A2011-99, Administrative Record, October 13, 2011, at 54. APWU notes that the Postal Service's response was that the information would be communicated to other postal officials for consideration, but the record does not indicate that any Spanish materials were ever provided. *Id.*

APWU contends that the Postal Service should provide a separate and distinct area within the PO-101 process for evaluating the effects on the community. APWU Brief at 24-25. Specifically, APWU contends that the Postal Service should do more to identify and ameliorate adverse impacts on vulnerable populations. *Id.* at 26.

CSRL refers to anecdotal information implying some public meetings and responses to comments have not adequately protected the public interest. CSRL Brief at 8-9.

⁹⁸ The Postal Service should ensure materials provided to customers that describe the discontinuance process accurately portray the Postal Service's and the Commission's roles in the process.

The Postal Service reiterates that it considers public input prior to making a determination of whether to discontinue a facility. Postal Service Brief at 23. The Postal Service contends that because community concerns vary widely from area to area and would not be known by decision-makers first hand, its process relies on consumer input and local manager knowledge. *Id.* at 27. The Postal Service states that its PO-101 Handbook process adequately assesses the specific factors relevant to each community as developed in the record. Postal Service Reply Brief at 24. It suggests that specific problems that are confined to individual locations such as those referenced by APWU are best addressed in the specific closing appeal docket. *Id.* at 24-26.

2. Commission Analysis

The Commission finds the suggested improvements offered by parties to be helpful, positive, and constructive. To demonstrate that the Postal Service is appropriately engaged with the community in evaluating facilities based on comments and public participation in a transparent manner, the Postal Service could, at a general level, provide an explanation of why certain groups of facilities have been removed from consideration during the discontinuance review.

The Commission finds that the Postal Service should continue to train local managers and review discontinuance recommendations to ensure community input received during the discontinuance review is given appropriate consideration and weight. The Postal Service may find it beneficial to query local managers that conduct discontinuance reviews as to the areas where additional training or information would be useful. The Postal Service could conduct random comprehensive audits of discontinuance review packages in order to capture best practices and avoid future problems.

C. PO-101 Statutory Compliance

1. Parties' Concerns

The Postal Service states that it has provided robust training on the new discontinuance procedures. See Tr. 1/603-04. However, no clear description of how the PO-101 process assures decisions that are consistent with the Postal Service's obligations under title 39 was provided in this record. Specifically, witness Boldt was unable to explain how the PO-101 process is intended to be consistent with the Postal Service's obligations under title 39. Tr. 1/43. The Postal Service states that its programs and communications are not defined in isolation from other legal and operational necessities by specific legal requirements. *Id.* at 270. The Postal Service "does not take respective statutory code sections and use those to construct training for some particular group of postal officials." *Id.* at 271.

The Postal Service acknowledges that its discontinuance procedure PO-101 Handbook does quote part of section 101(b) "as a way of emphasizing how critical that section is to postal discontinuance decisions." *Id.* However, the Postal Service states that this is a rare exception and inclusion of more provisions "would not generally be necessary or constructive in communication to or among postal workers and officials." *Id.*

APWU states that the Postal Service's assurances that it acts in compliance with provisions of the law are disingenuous. APWU Brief at 11. APWU takes issue with the claim that the Postal Service "has 'no specific legal requirement or business need for actually concluding that section 101(b) applies to a specific office....'" *Id.*, citing Tr.-1/190. APWU criticizes the Postal Service for not having a definition of "small Post Office" as used in section 101(b). APWU Brief at 11.

The Public Representative notes that the PO-101 process does not require the local manager to determine an affirmative reason supporting closure of a facility beyond

the facility's inclusion in the RAOI. PR Brief at 17. The Public Representative notes that while the PO-101 process is where local managers ensure the law is followed, the Postal Service does not provide a definition for the term "rural" even though specific protections are afforded rural post offices under the law. *Id.* at 20.

The Postal Service contends that the PO-101 Handbook is designed to ensure compliance with the law. Postal Service Brief at 21. As an example, the Postal Service offers the PO-101 Handbook's prohibition of using "operating at a deficit" as the determining factor to close a post office. *Id.* at 16.

The Postal Service contends that the "surest way for the Postal Service to avoid the charge that it is closing a small Post Office solely for operating at a deficit is to apply the [101 process]...as it does today – without regard to whether the office could be characterized as large or small, rural or urban." *Id.* at 17-18. Likewise, the Postal Service states that it cannot define "maximum degree of effective and regular service" because its determinations must "reflect the peculiar circumstances of each local service area in a manner that no cookie-cutter, one-size fits-all regulation can." *Id.* at 18. The Postal Service contends that its application of the PO-101 Handbook process is consistent with the discretion it is afforded as described in the Commission's USO Report. *Id.*

2. Commission Analysis

The Postal Service relies on local managers implementing the PO-101 process, as well as management in Delivery and Operations to make determinations on whether facilities should close. To ensure those determinations are in line with the policies of title 39, the Postal Service should train these individuals in identifying legal issues for review and applying applicable statutory standards.

D. Continuous Improvement of Discontinuance Procedures

1. Parties' Concerns

The Postal Service demonstrates a commitment to improve its discontinuance procedures (and ongoing access initiatives) through recent revisions based on previous initiatives. *See, e.g.,* USPS-LR-N2011-1/1. The Postal Service states that when moving forward with subsequent reviews of its retail network, it intends to absorb lessons from the RAOI and the Commission's Advisory Opinion and craft its plans accordingly. Tr. 2/834.

APWU offers specific suggested revisions to the PO-101 Handbook. Foremost is having a website for the discontinuance review of a facility where relevant information is posted such as relevant forms, the Postal Service's response to comments, and time/location of the community meeting. APWU Brief at 30-33.

The Postal Service comments that APWU makes suggestions for the PO-101 Handbook in this docket, but did not participate in the rulemaking that the Postal Service undertook to revise the PO-101 Handbook. Postal Service Reply Brief at 25.

2. Docket No. N2009-1 Advisory Opinion

On March 10, 2010, the Commission issued an Advisory Opinion in Docket No. N2009-1 concerning the Postal Service's Station and Branch Optimization and Consolidation Initiative. Similar to the RAOI, the SBOC Initiative was a headquarters-driven review of certain Postal Service operated retail outlets. Docket No. N2009-1 Advisory Opinion at 14. The SBOC Initiative, like the RAOI, was an effort to realign postal retail access with changing demand for postal services. *Id.* at 14-16. Unlike the RAOI, the SBOC Initiative did not involve a formalized or objective screening process, but rather was based on headquarters' review of stations and branches. *Id.* at 17. The SBOC Initiative utilized the "Post Office Discontinuance

Program,” the precursor to the PO-101 Handbook process used in the RAOI. *Id.* at 18-19. The Commission found that the discontinuance process utilized by the Postal Service “require[d] significant modifications to ensure the uniform provision of postal services in conformance with the policies of title 39 on a nationwide basis.” *Id.* at 35. The Commission developed a set of recommended modifications to ensure the process furthered the policies of title 39. *Id.* at 41-69.

In this case, parties and the Commission questioned the Postal Service concerning the previous recommendations made by the Commission, and their application to the RAOI. Tr. 1/140-41, 267-69. The Postal Service states that it did not undertake any specific action in response to the Docket No. N2009-1 Advisory Opinion because the “Commission’s opinion is merely advisory.” *Id.* at 267-68. However, the Postal Service notes that it considered the recommendations and undertook action to improve the discontinuance process, some of which were consistent with the Commission’s advice. *Id.* at 268. Postal Service witness Granholm agrees that the Postal Service made specific changes to the RAOI as well as the discontinuance process as a result of the Docket No. N2009-1 Advisory Opinion. *Id.* at 602-03. As the RAOI represents the next iteration of the Postal Service’s efforts to optimize its retail access, the Commission revisits its previous recommendations to improve the discontinuance process. The discussion that follows tracks the Commission’s discontinuance process related recommendations from the Docket No. N2009-1 Advisory Opinion and discusses the improvements to the discontinuance process.

a. Postal Headquarters Should Develop and Disseminate
Guidance for Local Managers

In the Docket No. N2009-1 Advisory Opinion, the Commission noted that there were no “guidance documents, briefings, directives, or instructions to Districts that discuss how to determine whether a particular closure or consolidation of a branch or station” would be made in accordance with the law. Docket No. N2009-1 Advisory

Opinion at 41. The Commission agreed that the Postal Service may properly rely on local managers to understand the needs of their areas, but found that those managers would “greatly benefit from guidance...to assure” the law is followed. *Id.* at 43. Overall, the Commission found that “the Postal Service should develop and disseminate national guidance to Districts, both explaining all factors to be considered and identifying any particularly important factors.” *Id.* Further, the Commission found that the Postal Service should formalize and document its discontinuance process after packages are sent from local managers to headquarters. *Id.* at 43-44.

In this case, Postal Service witness Granholm states that the Postal Service has engaged in “extensive training at the District Manager level, the Area Vice President level all the way down to the Coordinator level” of the discontinuance procedures, including all the changes to the procedures that were recently implemented. Tr. 1/603-04. The training, according to the Postal Service, has been web-based, and covered the expectations of each level of employee. *Id.* at 604. Witness Granholm characterized the training as “robust.” *Id.*

b. Method Used for Evaluating Proposals for Consolidations
and Closures Should Include a Separate Category for
Community Issues

In the Docket No. N2009-1 Advisory Opinion, the Commission described the factors selected by the Postal Service to consider in the prescreening process and in the discontinuance process. Docket No. N2009-1 Advisory Opinion at 46. Generally, the Postal Service considered current mail volume trends (limited to retail counter transactions and walk-in counter revenue), wait time in line for some facilities, mapping software, and operational details from the Facilities Database. *Id.* at 46-47. The Commission found that the Postal Service selected appropriate factors, but stated that assessment of distinctive community needs requires more attention. *Id.* at 47. The Commission elaborated that the Postal Service should “assure the District managers

take an active role in obtaining information related to current and future local conditions...” including seeking input about community issues from local stakeholders. *Id.* at 48.

In the current case, witness Granholm states that community input has been strengthened through the employment of the CSDC process. Tr. 1/605. Witness Granholm notes that soliciting community input has been expanded by providing broader notice to customers in the ZIP Codes served by the facilities. *Id.* at 605-06. However, he states that no instructions have been developed on how to seek information related to current and future local conditions. *Id.*

c. Public Notice Should Be Improved

In its Docket No. N2009-1 Advisory Opinion, the Commission described the types of notice that the Postal Service provided to customers in the SBOC Initiative. Docket No. N2009-1 Advisory Opinion at 48-49. The Commission found that the methods used by the Postal Service may often provide reasonable notice, but emphasized that the Postal Service should emphasize “providing actual notice to customers.” *Id.* at 50 (emphasis in original). The Commission also found that the Postal Service should provide the same type and amount of notice for proposed discontinuance of stations, branches, or post offices. *Id.* at 52-53. The Commission also found that the Postal Service should explore alternate means of garnering customer comments, such as by email. *Id.* at 54.

In this case, the Postal Service states that it has expanded notice to customers. Tr. 1/268. Witness Granholm states that the public notice provided to customers has expanded from a window posting and mailings to post office box customers to a mailed notice to all residents within a facility’s ZIP Code. *Id.* at 605-06. Witness Granholm explains that the letter sent to customers is also far more detailed. *Id.* at 606.

The Postal Service has not, based on the record in this case, made provision for accepting public comments over the web, or making comment forms available online.

d. Financial Analysis of Station and Branch Operations Should Be Improved

The Commission noted in the Docket No. N2009-1 Advisory Opinion that it is appropriate to balance cost considerations and service needs. Docket No. N2009-1 Advisory Opinion at 57. However, the limited availability of financial information available for stations and branches undermined the Postal Service's analyses. *Id.* at 57-58. The Commission found that the Postal Service should attempt to develop a methodology to recognize revenue leakage, a better methodology to estimate economic savings associated with discontinuance, and a review of discontinued facilities to ensure economic savings are realized. *Id.* at 58-61.

Witness Granholm reports that the financial analysis has been greatly improved in the new PO-101 Handbook process. Tr. 1/608. Witness Granholm explains that the Postal Service reviewed its financial analysis, and with "headquarters finance...develop[ed] a set of criteria that is now reviewed in every case...." *Id.* Specifically, the Postal Service responds that the new process considers seven categories of costs and savings in contrast to the two categories considered under the previous model. Tr. 2/849.

APWU contends that problems remain in the calculation of economic savings in the PO-101 process. APWU Brief at 27. APWU states that the costs to discontinue a facility, including increases in rural delivery, the cost of appeals, and the cost of reestablishing service after a remanded appeal should be considered. *Id.*

The Postal Service has not, based on the record in this case, created a mechanism to measure revenue leakage when a facility closes.

e. The Postal Service Should Implement Uniform Procedures for Closing or Consolidating All Types of Retail Facilities—Post Offices, Stations, or Branches

The Commission noted the different discontinuance procedures that the Postal Service employed for different types of retail facilities including stations, branches, and post offices. Docket No. N2009-1 Advisory Opinion at 61-64. The Commission found that customers of stations and branches should be given a meaningful opportunity to comment before a local facility is closed. *Id.* at 64. Further, the Commission found it “consistent with good public policy to establish uniform closure and consolidation provisions for all retail Postal facilities.” *Id.* at 64-65.

The Postal Service states that its new discontinuance procedures apply the same public notice and comment periods to stations and branches as have long applied to post offices. Request at 8-9. The Postal Service contends that its new rule “erases virtually all” of the community input procedure differences for stations, branches, and post offices. *Id.*

f. Customers Should Be Assured that the Postal Service Will Adhere to Its Published Procedures

In the Docket No. N2009-1 Advisory Opinion, the Commission noted the Postal Service’s view that classified stations and branches may be closed or consolidated without a right of appeal to the Commission. Docket No. N2009-1 Advisory Opinion at 65-66. The Commission noted its limited authority in appeals cases to review whether “the Postal Service’s own process was properly followed” and found that the record supports allowing the same procedural appeal rights for stations and branches as post offices. *Id.* at 66.

In this case, witness Granholm acknowledges that there have been issues, and states that it is the Postal Service's "purpose to eliminate those anomalies where we disserve customers through this process." Tr. 1/609. Witness Granholm states that the Postal Service's continuous improvement of the process and internal oversight will aid in eliminating inconsistencies. *Id.*

The Public Representative disagrees and notes the lack of quality assurance checks within the PO-101 process. PR Brief at 17.

3. Commission Analysis

The Commission commends the Postal Service for its efforts to update the PO-101 process since the Docket No. N2009-1 Advisory Opinion and SBOC Initiative. The Postal Service demonstrates that the facility review process is improving through experience and feedback from stakeholders. The Commission suggests that more direction is needed to develop information on local community conditions. Participants have mentioned using census data, local government data, school board and chamber of commerce information. The Commission urges the Postal Service to continue to improve and refine its discontinuance procedures through regular review and assessment.

The Postal Service should further develop its CSDC program to ensure consistent and robust administrative records are created for those facilities that are discontinued. Administrative records generated by the PO-101 process for discontinued facilities should demonstrate awareness of both quantitative and qualitative issues. For example, the administrative record should include current salary figures, identify all one-time expenses such as creation of additional post office boxes, cluster boxes, or other relocation expenses and take them into account in estimating savings, clearly address any possible issues with a potential lack of sufficient post office boxes at gaining facilities, quantify offsetting costs such as additional rural delivery, and review the

mileage and travel time from the closing facility to the gaining facility. The administrative record should identify the type of salary that is saved, whether it is a postmaster or an OIC, and the status of such employees after discontinuance. The administrative record should also reflect the Postal Service's consideration of capacity at a "receiving facility" to handle increased retail transactions, post office box rentals, and other transactions.

The Commission recognizes that parties in this docket critiqued the PO-101 discontinuance rules outside of the rulemaking that implemented the rules that ended in July 2011. Nevertheless, the Postal Service ought to consider constructive suggestions that improve transparency of the process.

The Commission acknowledges the Postal Service's stated commitment to consider its retail access initiatives in coordination with other initiatives and plans that affect access. The Commission advises the Postal Service to take a holistic view of its retail access plan, advancing plans for alternate access simultaneously with plans for reduced brick-and-mortar access.

IX. ALTERNATIVE ACCESS

The RAOI has the potential to impact access to postal services for many mail users on a nationwide basis; therefore, it is important for the Commission to review the sufficiency of alternative access to postal services for individuals potentially losing access to their local postal retail facilities. The policies of title 39 require the Postal Service to “have as its basic function the obligation to provide postal services to bind the Nation together,” and “provide prompt, reliable, and efficient services to patrons in all areas and shall render postal services to all communities.” 39 U.S.C. § 101(a). Further, the Postal Service is directed

to establish and maintain postal facilities of such character and in such locations, that postal patrons throughout the Nation will, consistent with reasonable economies of postal operations, have ready access to essential postal services.

39 U.S.C. § 403(b)(3).

The Postal Service is increasing the availability of alternative access channels to obtain postal services. The Postal Service should continue to innovate in this area, including improving access channels that already exist.

The Postal Service, when evaluating the adequacy of alternate access during a discontinuance study, should evaluate the range of postal services offered at alternate access sites. In many instances, alternative access channels cannot replace actual postal facilities. Certain services, such as money orders and parcel pickup or mailing, may not be feasible except at a staffed retail facility. The Postal Service should consider how a potential closing affects alternative retail access, including alternative access channels, before a final determination on the discontinuance of a particular facility is made. It is not enough for alternative access channels to have the potential to become available in the future. The effectiveness of particular alternative access

channels and alternative retail facilities must be considered prior to, and simultaneously with, discontinuance studies.

The Commission finds that in order to provide adequate access the Postal Service should develop alternatives that are better tailored for customers in rural or remote areas.

Witness Boldt attempts to rationalize the RAOI, in part, on the availability of alternative retail and delivery access channels for postal services. USPS-T-1 at 2-9. He points to data that he believes shows that customers are choosing to use alternative access in lieu of traditional post offices. It shows that the proportion of postal retail revenue generated through alternative access channels has grown to over one-third of total retail revenue.⁹⁹ USPS-T-1 at 4; Tr. 1/48, 240. The Postal Service does not distinguish between individual or business customers or distinguish the location of users. *Id.* at 277-78. Witness Granholm believes that the Postal Service can do more work on developing alternative access and explains that the Postal Service is looking into retail options for the future, including kiosks, future contract stations, and different types of technology to assist customers in using alternate access moving forward. Tr. 1/610. The Postal Service, however, states that it “has zero expectation that ‘alternative access’ by itself ‘will adequately meet the demand for retail postal services.’” *Id.* at 266.

Witness Boldt identifies the following current methods of alternative access to postal services: (1) stamps on consignment; (2) Approved Shippers; (3) Village Post Offices; (4) the Postal Service’s public website; (5) Automated Postal Centers; (6) contract postal units; and (7) Rural Delivery Carriers. The Commission examines each of these alternative access channels and makes recommendations on how the

⁹⁹ It should be noted that this statistic is for total retail revenue throughout the postal system. The Postal Service does not have data on the retail revenue collected from alternative access in the areas served by the facilities under consideration for discontinuance as a result of the RAOI. Tr. 1/280.

Postal Service could make alternative retail access more effective. Then the Commission offers recommendations for dealing with specific alternative access concerns for customers located in rural and remote areas. Next, the Commission makes suggestions for updating the Postal Service's Postal Accountability and Enhancement Act section 302 plan as it pertains to alternative access. Finally, the Commission makes recommendations regarding some additional alternative access options raised by intervenors in this case.

A. Current Alternative Access Options

1. Stamps on Consignment

Stamps on consignment is a program where private retail stores sell stamps through consignment arrangements with the Postal Service. Tr. 1/117, 161. Consignment locations do not accept mail nor provide any other postal service except the selling of postage stamps. Consignment locations may sell rolls and booklets of stamps and Forever Stamp booklets. All formats are not sold at every location. *Id.* The Postal Service believes that consignees are generally eager to sell stamps since they believe that stamp customers will make other purchases when visiting. *Id.* at 277. Stamps on consignment locations may offer improved convenience, easier access via increased transportation options, and longer hours than a traditional postal retail facility. *Id.* at 289.

The Postal Service pays retailers a fixed rate commission to manage the consignment program and maintain relationships with retailers. Select consignment retailers are compensated by the Postal Service for achieving specific levels of sales' performance. As part of consignment agreements, consignees receive signage from the Postal Service. *Id.* at 160.

2. Approved Shippers

Approved Shippers accept certain mailpieces for entry into the mailstream and sell postage and packaging. Tr. 1/160, 169. In particular, approved shippers may accept domestic and international retail shipping and mailing services including Global Express Guaranteed, Express Mail, Priority Mail, First-Class Mail Parcel Post, Certified Mail, Insurance, Signature Confirmation, Delivery Confirmation, and Return Receipt. *Id.* at 169-70. Approved shippers are also required to have a postage account to sell and apply postage to mailpieces by meter label or PC Postage label. *Id.* Approved shippers may not offer Registered Mail service or other services that require a Postal Service employee to validate the receipt of a mailpiece such as Certificate of Mailing. Many approved shippers provide complimentary Express and Priority Mail packaging. *Id.* Approved shippers are provided Postal Service signage, but are otherwise not compensated by the Postal Service. *Id.* at 160.

3. Village Post Offices

The Village Post Office concept, publically announced in July 2011, is an innovation that the Postal Service seeks to explore and attempt to expand. Tr. 1/76-78. A Village Post Office is a non-postal owned and operated establishment that sells stamps and prepaid Priority Mail Flat Rate boxes. *Id.* at 76. Village Post Offices are not expected to be full-service offices. *Id.* at 200, though some Village Post Offices are expected to have post office boxes serviced by postal employees. *Id.* at 76. Village Post Offices appear to offer more services than a business that sells stamps on consignment, but less services than an Approved Shipper.

The Village Post Office is a new attempt by the Postal Service to improve access to customers when it may determine to discontinue a particular facility as part of the RAOI or otherwise. *Id.* at 610. While the Postal Service does not believe the Village Post Office concept to be a “robust piece of this [RAOI] package,” it is expected to

provide at least some nominal access to customers in locations where a post office is discontinued. *Id.*

On brief, several participants point to recent media reports that state that the Postal Service no longer views the Village Post Office concept as being as effective at providing alternative access as it had originally thought.¹⁰⁰ The Postal Service attempts to refute this claim by quoting a Postal Service statement in the record that attempts to separate the Village Post Office concept from the RAOI and other discontinuance actions. Postal Service Brief at 48.

4. The Postal Service's Public Website

The Postal Service's public website is the Postal Service's fastest growing alternative access channel. Tr. 1/553. For customers with internet access, the use of *www.usps.com* provides an additional channel to conduct some transactions that might otherwise require a trip to a post office. *Id.* at 290. The *www.usps.com* website allows users to print postage and access a number of domestic and international postal services. *Id.* at 150. (See chart displaying access channels for a variety of postal services.)¹⁰¹ However, *www.usps.com* does not allow users to access many other postal services. For example, *www.usps.com* does not allow users to print First-Class or parcel post postage. Tr. 1/150.

5. Automated Postal Centers

Automated Postal Centers (APCs) are self-service kiosks that give customers access to many postal products and services. Less than 1 percent of APC units are located away from a postal facility, the vast majority operate in postal lobbies. *Id.* at 79.

¹⁰⁰ See, e.g., APWU Brief at 10; NLP Brief at 7-8; PR Brief at 19; PR Reply Brief at 9; NAPUS Brief at 8; NNA Comments at 2.

¹⁰¹ Along the same lines, the Postal Service allows customers to order postage stamps and certain shipping supplies by mail, fax, and telephone. USPS-T-1 at 4.

There are currently approximately 2,500 APCs in existence today. USPS-T-1 at 4. The Postal Service states that through the RAOI, APC availability will remain as it is, although APCs currently located in offices that are closing will be relocated.

Tr. 1/79, 554. The Postal Service does not have plans to relocate APCs to Village Post Offices. Tr. 1/79.

In addition to APCs that are currently available in postal lobbies during regular postal retail hours, APCs located in “outer” postal lobbies are accessible outside of regular retail hours. As such, they provide an alternate channel for postal customers to access some retail products and services when postal retail windows are closed. *Id.*

6. Contract Postal Units

A Contract Postal Unit (CPU) is a non-postal owned and operated retail facility. It is usually a privately owned and operated retail business which, under contract to the Postal Service, conducts many retail window transactions ordinarily available at post offices. USPS-T-1 at 5 n.6. Customers may purchase far more types of postal services at CPUs than at Village Post Offices and Approved Shippers. Tr. 1/76, 150. In contrast to a Village Post Office, CPU operators accept mail on behalf of the Postal Service. A collection box may be located on or in close proximity to the premises of a CPU and some CPUs also house post office box units. These box units may be serviced either by the CPU, operator or postal delivery personnel. *Id.* at 76. CPU operators are compensated in accordance with their contracts, and they typically share postal revenue with the Postal Service. *Id.* at 106, 160.

7. Rural Delivery Carriers

A letter carrier who delivers in rural areas, communities, and small towns can operate as a “Post Office on Wheels” offering postal services to customers on the carrier’s route. *Id.* at 290, 293. A rural carrier can provide most of the same services as those provided at a traditional post office, including offering postal money orders. To

obtain certain postal services from a rural carrier, customers have to make contact with the carrier waiting at the mailbox or leaving a note requesting a form. *Id.* at 400. In the case of money orders, the customer has to meet the carrier at the delivery receptacle 2 days in a row—first to give the application form and money to the rural carrier, and second to receive the money order. *Id.* While the Postal Service strives to have rural carriers maintain a consistent schedule as often as they can, a customer cannot make an appointment with their rural carrier. *Id.* at 401. A rural carrier also cannot routinely accept packages for mailing over 13 ounces. *Id.* at 382.

B. Commission Analysis

1. Analysis of Alternative Access Options Presented

Currently, the Postal Service is increasing the availability of alternative access channels to obtain postal services. The Postal Service should continue to innovate in this area, including improving access channels that already exist. For the typical customer, alternative access channels augment, and sometimes may even eliminate, visits to postal facilities. The Postal Service is encouraged to make these alternative access channels available and transparent to customers. It should be clear what postal services each location does and does not offer to customers, particularly during a discontinuance study. When evaluating the adequacy of alternate access during a discontinuance study, the Postal Service should evaluate the range of postal services offered at alternate access sites. For example, customers using www.usps.com are unable to purchase postage for several popular products (such as First-Class Mail parcels, Parcel Post, and Media Mail), which impairs the potential value of this alternate access channel.

The Commission previously found all mail matter to be part of the Postal Service's universal service obligation. USO Report at 19, 25, 182. The Postal Service would improve the discontinuance process by presenting the community with an

explanation of where to find specific services, and offering a wider range of services at alternate access channels.

The Commission finds that in many instances alternative access channels cannot replace actual postal facilities. Certain services, such as money orders and parcel pickup or mailing, may not be feasible except at a staffed retail facility.

The Postal Service's Village Post Office concept deserves specific discussion. On brief, the Postal Service appears to argue that the Postal Service's roll out of Village Post Offices is essentially irrelevant to the RAOI. See Postal Service Brief at 48. The Commission disagrees. Alternative access is at the heart of this case. Tr. 1/401-02, 611, 615-16.¹⁰²

One of the Commission's primary responsibilities is to ensure that universal service is maintained. Alternative retail access, including alternative access channels, is extremely important to the Postal Service's universal service obligation. Closing facilities has an impact on service and puts a strain on the Postal Service's network as well as customer access to the postal system. Accordingly, the Postal Service should consider how a potential closing affects alternative retail access, including alternative access channels, before a final determination on the discontinuance of a particular facility is made. It is not enough for alternative access channels to have the potential to become available in the future. The effectiveness of particular alternative access channels and alternative retail facilities must be considered prior to, and simultaneously with, discontinuance studies. For example, as described above, Village Post Offices are limited substitutes for full service postal retail facilities.

¹⁰² Question: "So we are trying to...make an assessment on how well the alternative access provisions will meet the needs of a local customer. WITNESS GRANHOLM: Agreed." Tr. 1/611. See *also* Request at 4 stating that one of the goals of the RAOI is to improve efficiency and enhance customer convenience for postal retail services through use of alternate access.

For the RAOI or any Postal Service initiative to reduce its retail footprint to conform with the policies of title 39, the Postal Service must ensure that ready access to essential postal services will continue to be provided to customers. Under the policies of title 39, the potential loss of a particular postal retail facility implies that such ready access must be provided through an alternative channel – whether that is through a nearby “full service” postal-operated retail facility or through alternative retail access channels.

2. Specific Concerns for Alternative Access in Rural and Remote Areas

Witness Strong testifies that the RAOI is detrimental to the level of services provided to small and rural communities, and contends that the RAOI will have a significant impact on rural communities that cannot be cured by alternate access. NLPM-RT-1 at 15-21. Similarly, witness Hobbs contends that closing rural post offices will be detrimental to rural communities and that rural letter carriers will not be able to replace necessary postal services in these communities. NLPM-RT-2 at 4-16. Witness Zilinski discusses security concerns with closing rural post offices as the alternatives could be vulnerable to theft and weather. NAPUS-T-2 at 3-6. Witness Zilinski states that rural carriers are not viable alternate options for many rural residents. *Id.*

The Commission has specific universal service obligation-related concerns with the Postal Service’s reliance on the alternative access methods discussed above. Many of these options are better suited for providing customers in urban and suburban areas with alternative access. The Postal Service appears to be relying too much on the Postal Service’s fastest growing alternative access channel, the internet, to provide access to its customers in rural and remote areas. Tr. 1/553. Credible testimony in this case demonstrates that areas with low population density are at a disadvantage in terms of access to internet services. Tr. 3/902. There are also many towns that presently have no internet access. Tr. 1/443.

With respect the RAOI in particular, Commission concerns about the current viability of the internet as an alternative access channel in rural and remote areas are particularly germane. Witness Morrison cites a recent report by the Pew Internet and American Life Project finding that one-half of rural households reported access to home broadband service in comparison with 70 percent of non-rural households. Internet speeds are also slower in rural areas. *Id.* APWU-T-1 at 25-26; Tr. 3/915. Witness Morrison also points to a Federal Communications Commission report that states 3.8 million people in rural areas have no mobile broadband access and only 81.6 percent of rural U.S. square miles is estimated to have mobile broadband coverage.” APWU-T-1 at 27. These statistics imply that the alternative of accessing postal services through the internet may be more limited for rural areas than the Postal Service appears to assume. Accordingly, the Commission finds that in order to provide adequate access, the Postal Service should develop alternatives that are better tailored for customers in rural or remote areas.

3. The Postal Service’s PAEA Section 302 Plan

Under the PAEA section 302, the Postal Service was required to develop and submit a network plan to Congress. The plan was required to include the Postal Service’s strategy for expanding and marketing alternative retail access to postal services. PAEA section 302(d). That plan was submitted to Congress on June 19, 2008. See Docket No. N2009-1, USPS library reference N2009-1/9, August 25, 2009. While PAEA section 302 requires the Postal Service to provide annual reports to Congress on certain aspects of the plan, the statute does not require the Postal Service to update its network plan with respect to its retail network and, in particular, alternative retail access. *Compare* PAEA section 302(c)(4) *with* PAEA section 302(d).

The Commission notes that the Postal Service has recently made changes to its retail footprint and is considering additional changes.¹⁰³ The Postal Service has stated that it intends to undertake similar nationwide initiatives in the not too distant future to consolidate or discontinue more retail facilities. Tr. 1/612. As a result, the Commission recommends that the Postal Service consider reviewing its PAEA section 302 plan as it pertains to alternate access and update it in light of these past, present, and future retail access initiatives to evaluate the impact of the Postal Service's increased reliance on substitutes for retail access.

4. Additional Alternative Access Options

Several parties raise additional potential alternatives to the traditional post office that warrant further consideration. NNA and witness Heath discuss a "circuit rider" postmaster concept. NNA-T-1 at 8-9; NNA Comments at 5. A circuit rider postmaster, as described in this docket, is a postmaster who would oversee several offices within a reasonable driving distance and allow contract clerks to conduct the day-to-day operations of the postal facility. Witness Heath testified that he believes that this could create better service at a lower cost. NNA-T-1 at 8-9. This could also allow the Postal Service to maintain a knowledgeable Postal Service trained manager for facilities while allowing the Postal Service to cut its labor costs for retail operations. The Commission recommends further exploration of this issue.

APWU raises the prospect of the Postal Service expanding its network of mobile vans as a viable means of alternative retail access. APWU Brief at 28; APWU-T-1 at 33. APWU argues that this would reduce the Postal Service's retail footprint while

¹⁰³ In addition to this case, the Commission's Docket No. N2009-1 case also addressed postal retail access and alternative access channels. The Postal Service recently requested an advisory opinion on its plan to change service standards and realign its mail processing network. See Docket No. N2012-1, Mail Processing Network Rationalization Service Changes, 2012, December 5, 2011.

still providing retail access to a broad array of postal services at a lower cost.¹⁰⁴ *Id.* While the Postal Service does not believe that mobile vans are a viable option for rural areas, see Tr. 2/663, the Commission suggests that mobile vans could provide appropriate alternative access to meet mailing and shipping needs for some postal customers, at least in the more urban and suburban areas affected by the RAOI. The Postal Service should study the feasibility of using such alternative access options to meet its universal service obligations with respect to retail access.

¹⁰⁴ The Postal Service argues that there is no support in the record for this assertion. Postal Service Reply Brief at 5-6.

X. CERTIFICATION

It is the opinion of each of the undersigned Commissioners, pursuant to 39 U.S.C. 3661(c) that this opinion conforms to the policies established under title 39, United States Code.

Ruth Y. Goldway, Chairman

Mark Acton, Vice Chairman

Nanci E. Langley, Commissioner

Robert G. Taub, Commissioner

CONCURRING OPINION OF CHAIRMAN GOLDWAY

Congress recently enacted appropriations legislation requiring that “6-day delivery and rural delivery of mail shall continue at not less than the 1983 level” and that “none of the funds provided in this Act shall be used to consolidate or close small rural and other small post offices in fiscal year 2012.”

Clearly there continues to be strong, bipartisan agreement that it is necessary for the nation to maintain a visible and vibrant mail delivery network and that small post offices are an important part of the system.

The Commission might have determined - given this legislative language - that the Postal Service proposal to close 10 percent of the nation's small post offices is contradictory to the law of the land. The Commission could have found that the Postal Service is required to maintain all of its existing post offices. But the Commission recognizes that any system must adapt to changing economic, cultural, and technological conditions in order to remain viable.

The Commission's Advisory Opinion advises the Postal Service on the best methods to maintain service comparable to 1983 levels and, in fact, how overall service can be improved while making necessary cuts. We do so by presenting the outlines for developing a bona fide optimization plan. Such a plan would include the comprehensive analysis of hard data and the more careful consideration of each individual community's needs.

The Postal Service, by law, may not be required to follow the recommendations presented in the Commission's decision. If it chooses not to and rather proceeds with the RAOI as originally submitted to the Commission, it risks, I believe, violating the law I cited earlier and the consequences that could follow.

Fortunately, the Postmaster General's announcement of a moratorium on postal facility closings and his further discussions that promise additional review of the 3,600 postal facilities in the RAOI suggest that the many concerns raised during the public hearings held by the Commission on the RAOI have been heard and may be addressed.

Separate from the RAOI review, the Commission has recently heard appeals on more than 60 individual post office closings. The records in these cases reveal a pattern of inaccurate and overly optimistic economic savings calculations and of careless disregard of community concerns. While the facts of those cases were not considered by the Commission in its Advisory Opinion, they nevertheless demonstrate an ongoing institutional bias within the Postal Service that presumes closing small post offices automatically provides cost savings and network efficiencies.

I urge the Postal Service to incorporate the recommendations presented by the Commission in the Advisory Opinion to ensure that the legally required national level of service is maintained and is indeed made more efficient.

APPENDIX A—MAPS PERTAINING TO CHAPTER V Section B: APPLICATION OF RAOI SCREENING CRITERIA

To improve its understanding of the current scope of the Postal Service's retail network, and to facilitate its analysis of the potential effects of the RAOI, the Commission used ArcGIS software to plot the location of all Postal Service retail facilities, including those identified for discontinuance review in this docket. These locations were overlaid with the placement of roads and combined with socio-economic data from the U.S. Census Bureau.¹⁰⁵

These data can be used to draw maps of any part of the country that visually present the geographic relationships between RAOI facilities and other nearby Postal Service retail facilities. This appendix presents a few examples of the types of maps that can be created to examine various aspects of the retail network and potential changes to it.¹⁰⁶

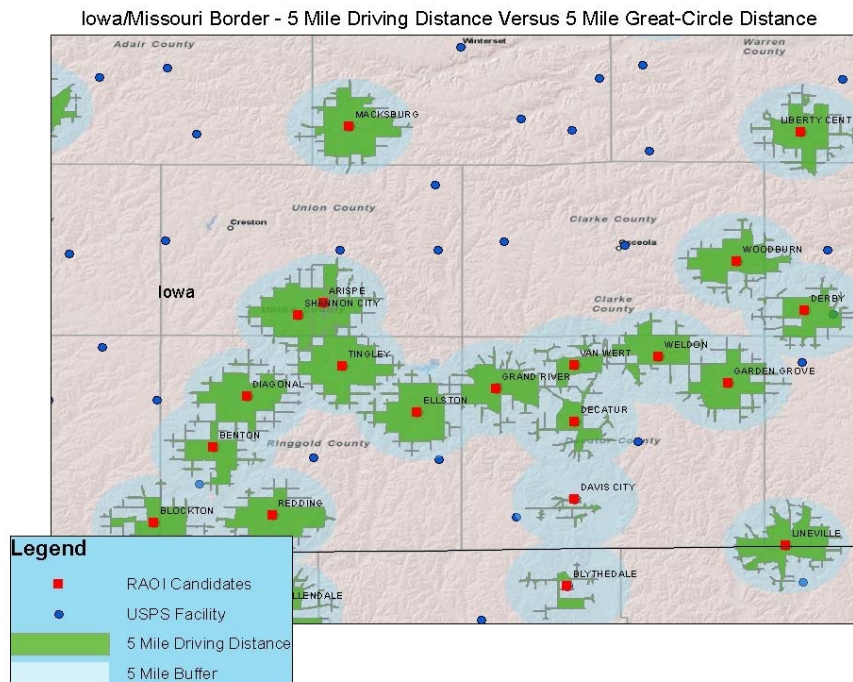
As discussed in this Advisory Opinion, the Commission's review of the record in this case, including the testimony of witness Waters, supports the use of GIS as an effective mapping and database tool for the analysis of networks such as the Postal Service's retail network. GIS allows visual representation of each postal facility as a point on a map, with the corresponding geographic, socio-economic or other data (that characterizes the postal facility or the surrounding area) uploaded into the map. This provides significant visual and analytical support to analysts and decision makers, which

¹⁰⁵ See PRC-N2011-1-LR1, RAOI_Facilities_Public.xlsx and USPS Post Office Locations_Public.xlsx. Using commercially available GIS software, these files can generate maps showing combinations of these data for any location within the United States.

¹⁰⁶ These maps do not represent a complete analysis, nor should they be construed as implying any finding by the Commission with respect to the reasonableness of distances to alternative facilities or adverse impact on any group of customers.

is why GIS is broadly used by the U.S. Department of Transportation as well as by local transportation authorities.¹⁰⁷

Maps can be used to quickly assess the difference between linear (or great-circle) distances¹⁰⁸ and driving distances between facilities. Some areas, especially those with a relatively flat topography and those with a more extensive road network, have many facilities that exhibit relatively small differences between great-circle and driving distance.

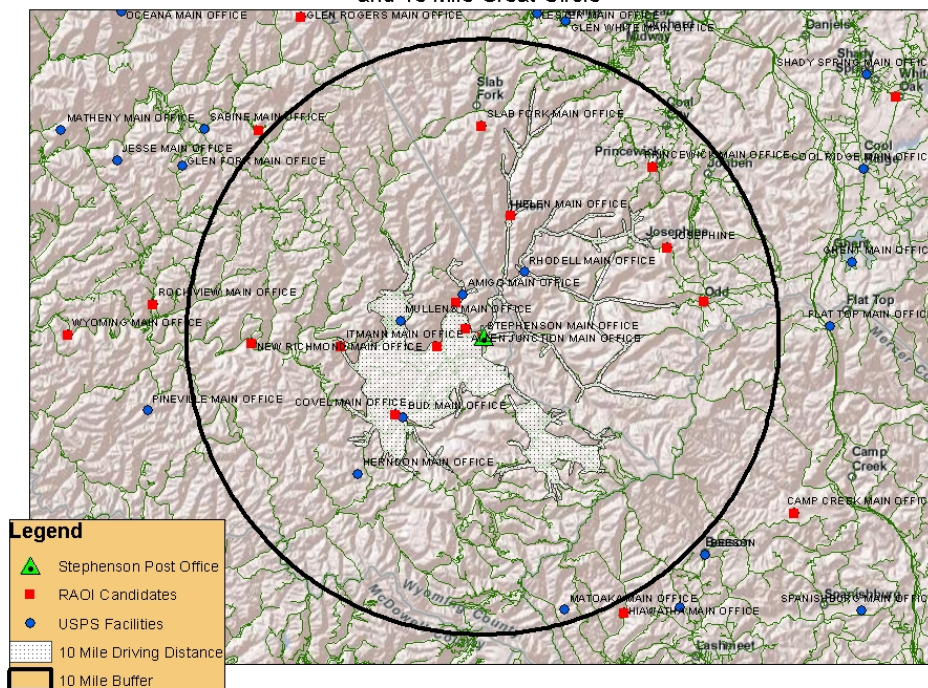


¹⁰⁷ See, e.g., Welcome to GIS in Transportation Website. Federal Highway Administration, U.S. Department of Transportation, <http://gis.fhwa.dot.gov/default.asp>.

¹⁰⁸ For some of the components of RAOI, the Postal Service uses great-circle distance from alternative access sites in its screening criteria. In individual discontinuance reviews, the Postal Service considers the driving distance to the nearest alternative facility.

In the example above, the light blue shaded circles represent the area within a 5-mile great-circle distance of each RAOI facility, while the green shaded areas represent the area within a 5-mile driving distance. There are a few RAOI facilities on this map, such as Davis City and Blythedale, where great-circle and driving distances differ substantially. For most of the RAOI facilities on this map, however, great-circle distance provides a more reasonable approximation of the actual driving distance from the facility than for these exceptions.

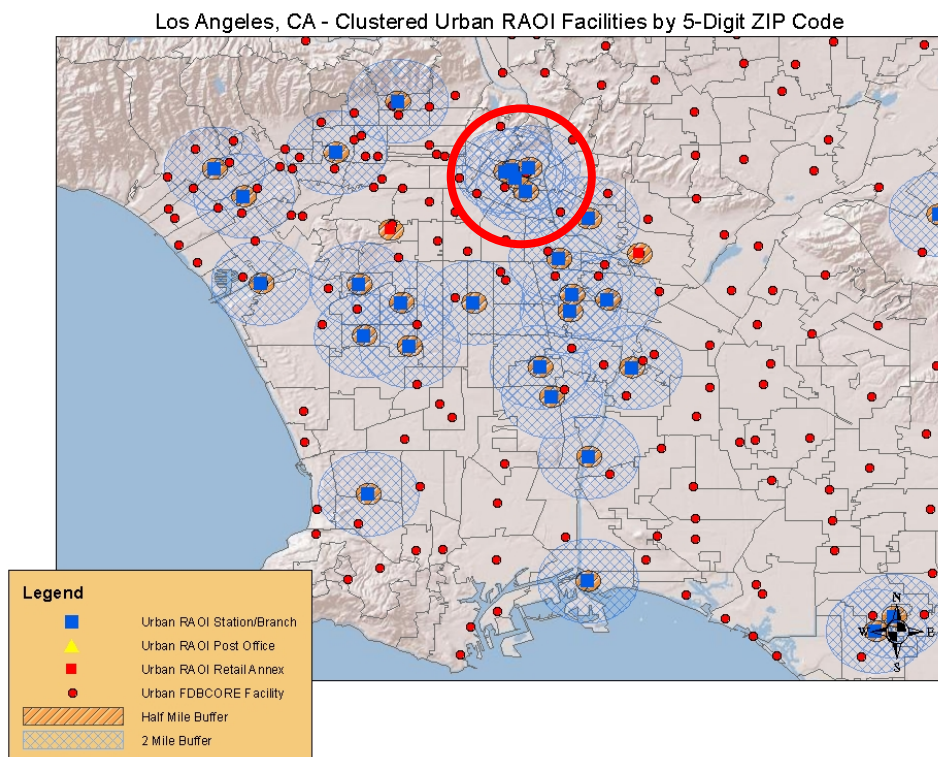
Stephenson Post Office and Surrounding RAOI Candidate Facilities - 10 Mile Driving Distance and 10 Mile Great-Circle



In other areas, like the mountainous area shown in the map above, there are many nearby facilities within a given radius (shown as concentric circles) that are outside of the driving distance of the same length (represented by the shaded region) which is limited by the local topography and road network. Where there are large differences between driving distance and great-circle distance, the use of great-circle distance in an optimization or screening model can lead to solutions that result in less convenient access to retail facilities than intended. For example, the Herndon Main

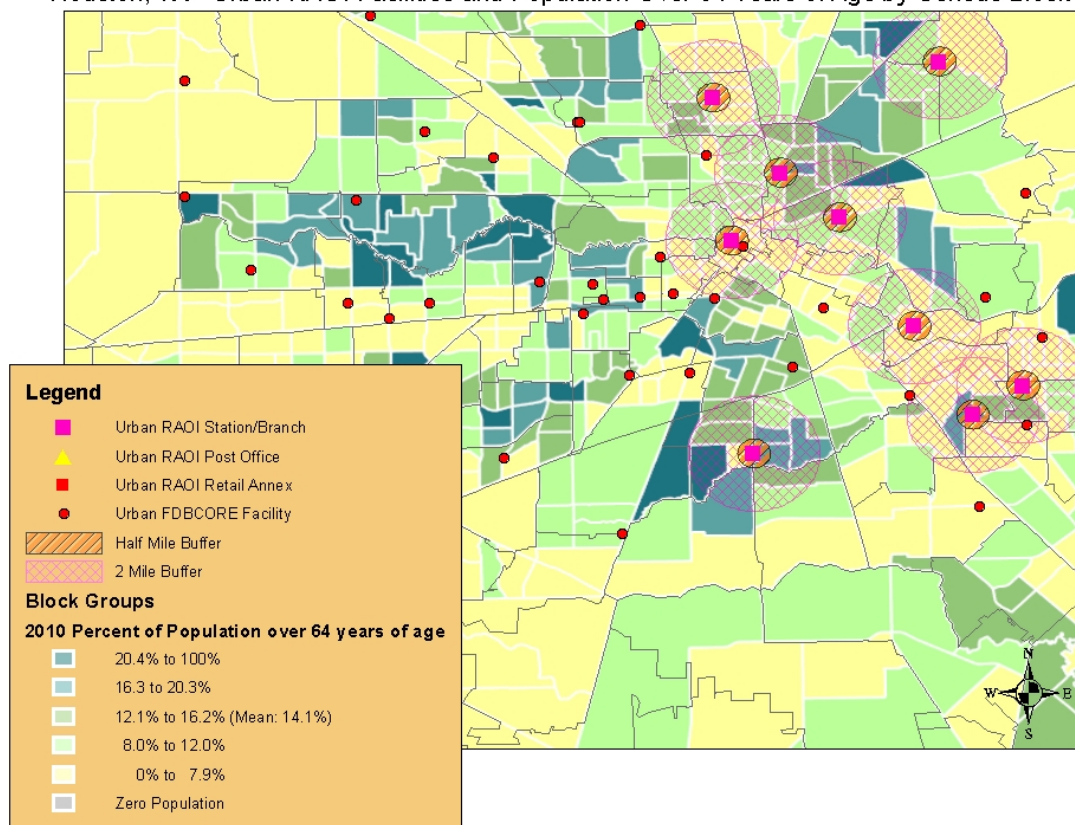
Office to the southwest is located within a 10-mile great-circle distance of the Stephenson post office, but it is not within a 10-mile driving distance. This illustrates the value and importance of using driving distances wherever possible.

The GIS analysis can also be used to present examples of several RAOI facilities existing in a tight cluster. The map of Los Angeles below, has one such cluster identified by a red circle. As discussed in this Advisory Opinion, clusters of candidate facilities such as this present the possibility that RAOI facilities are being identified as alternate retail access points for other RAOI facilities. The application of screening refinements could eliminate some of the facilities in the cluster from the candidate list. This would help to avoid the expense and upheaval caused by a discontinuance review at a facility where it may be unnecessary.



The software can also facilitate the visual analysis of the relationship between facility locations and patterns of various socio-economic variables. In the example below, facility locations are plotted on a map of Houston that includes the 2010 percentage of the population over the age of 64 for each census block group.

Houston, TX - Urban RAOI Facilities and Population Over 64 Years of Age by Census Block Group



Appendix B—ATTEMPTED FINANCIAL ANALYSIS ILLUSTRATING DATA QUALITY ISSUES

A. Introduction

Chapter VII discusses the data quality issues that the Commission encountered that prevent the Commission from being able to construct reasonably reliable estimates of the potential financial effects of this initiative. In that chapter, the Commission also makes recommendations to improve the Postal Service's data and database quality which should improve the accuracy and relevance of future Postal Service initiatives such as the RAOI. This appendix explores, in more detail, the Commission's analysis which, due to these data issues, does not support robust estimates. Below, the Commission discusses its analysis and data quality issues for the total cost of the retail network, the total operating cost for the RAOI facilities, the revenue for the RAOI facilities, and the expected cost savings from closing RAOI facilities.¹⁰⁹

¹⁰⁹ The details and underlying calculations of this analysis are presented in library references PRC-N2011-1-LR-NP3.

B. Attempts to Estimate the Total Cost of the Postal Service's Retail Network

To put the potential cost savings of the RAOI in perspective, the Commission first calculates the total cost of the Postal Service's retail network. To arrive at this estimate, the Commission aggregates several direct and indirect cost components for window service costs. It uses the Postal Service's FY 2010 Cost Segments and Components report.¹¹⁰

Under this analysis, cost components solely related to operating the retail network in FY 2010 totaled almost \$6.3 billion. The following table lists the isolated components and corresponding cost.

¹¹⁰ The Commission's calculation includes the direct and indirect costs of window service as well as labor costs that directly or indirectly correlate to the retail operation. The Postal Service does not calculate indirect costs associated with retail window services; therefore, the Commission uses total postmaster costs as a proxy for the cost of retail window activities performed by postmasters. Because postmasters perform other activities unrelated to window service, this estimate overstates the actual retail window service costs associated with postmasters. See Docket No. ACR2010, library reference USPS-FY10-2.

| Cost Components (000) | Direct and Indirect Cost of Window Services (1) | Direct and Indirect Cost of Postmasters EAS 23 & Below (2) | Direct and Indirect Cost of Postmasters EAS 24 & Above (3) | Total Cost of Retail Network (4) = (1) + (2) + (3) |
|---|--|---|---|---|
| Window Service and Postmasters | \$2,415,573 | \$2,180,999 | \$58,605 | \$4,655,177 |
| <i>Indirect Costs</i> | | | | |
| Supervision of Window Service | \$216,021 | | | \$216,021 |
| Joint Supervision Clerks & Carriers | \$62,712 | | | \$62,712 |
| Operating Equipment Maintenance | \$30 | | | \$30 |
| Higher Level Supervisors | \$6,669 | | | \$6,669 |
| General Office & Clerical | \$34,531 | | | \$34,531 |
| Custodial Personnel | \$38,307 | \$72,289 | \$15,121 | \$125,717 |
| Plant & Building Equipment Maintenance | \$17,135 | \$32,335 | \$6,763 | \$56,232 |
| USPS Security Force | \$1,747 | \$3,297 | \$690 | \$5,734 |
| Supervision of Admin. and Support Activities | \$1,562 | \$1,280 | \$268 | \$3,110 |
| Time & Attendance | \$1,932 | \$1,583 | \$331 | \$3,846 |
| Repriced Annual Leave | \$5,198 | \$4,261 | \$891 | \$10,350 |
| Holiday Leave | -\$780 | -\$640 | -\$134 | -\$1,554 |
| Annuitant Life Insurance | \$911 | \$747 | \$156 | \$1,814 |
| Workers Comp Current Year | \$67,089 | \$54,986 | \$11,502 | \$133,578 |
| Annuitant Health Benefits - Earned (Current) | \$235,219 | \$192,786 | \$40,325 | \$468,330 |
| Unemployment Compensation | \$4,247 | \$3,481 | \$728 | \$8,455 |
| Contract Cleaners | \$3,315 | \$6,578 | \$1,376 | \$11,269 |
| Retail Credit Card Fees | \$171,804 | | | \$171,804 |
| Rents | \$55,989 | \$18,817 | \$18,817 | \$93,623 |
| Fuel | \$2,537 | \$4,902 | \$1,025 | \$8,463 |
| Utilities | \$18,470 | \$35,687 | \$7,465 | \$61,623 |
| Custodial and Building | \$6,441 | \$12,445 | \$2,603 | \$21,489 |
| Miscellaneous Postal Supplies & Services | \$43,004 | \$34,286 | \$7,172 | \$84,462 |
| Equipment | \$12,630 | | | \$12,630 |
| Approximate FY 2010 Retail Window Function Total Costs | | | \$6,256,115 | |

Source: PRC Docket No. ACR2010, library reference USPS-FY10-LR24.

Note: Indirect costs include only the portion of each cost component that is associated with window service or postmasters.

C. Attempts to Estimate the Postal Service's Total Operating Cost for the RAOI Facilities

The Commission attempts to calculate total operating costs for the complete set of RAOI facilities. Calculation of the total operating costs for all of the RAOI facilities is extremely difficult given the quality of data provided in this case. Most troublesome are that costs are not reported by individual retail facility; rather, they are aggregated by facility finance number. Each facility finance number could, and in many instances does, contain numerous postal retail facilities.¹¹¹ For example, the costs reported for the facility finance number associated with the Baltimore PO aggregates the operating costs for eight different postal retail facilities.¹¹² Thus, costs presented for post offices stations, branches, or retail annexes are likely to reflect total costs from the independent main post office as well as other subordinate post office stations, branches, or retail annexes. Given this significant accounting issue, the Commission cannot provide an accurate estimate for the potential cost savings for all of RAOI facilities.

However, retail facilities that fall into the low workload category are usually identified by a unique facility finance number.¹¹³ This subset of data more accurately reflects the true cost of these particular retail facilities. The Commission estimates the operating costs of the low workload category of RAOI facilities to be \$223.7 million.¹¹⁴ This means that if the Postal Service were to close all of the RAOI facilities in the low

¹¹¹ According to the Postal Service, "cost and revenue data for approximately 1,900 subordinate stations and branches are rolled up in postal accounting systems and included in the data for the Post Offices to which they report." Notice Of United States Postal Service Of Filing Library References USPS-LR-N2011-1/5 AND USPS-LR-N2011-1/NP3, August 24, 2011, at 1.

¹¹² Apparently, for accounting purposes, the Postal Service does not always distinguish between "primary" postal facilities (such as "independent post offices") and their "subordinate" units (such as station and branch post offices or retail annexes). *Id.*

¹¹³ These low workload facilities typically do not have "subordinate" units such as stations, branches, or retail annexes.

¹¹⁴ As part of its analysis, the Commission was able to verify all but one of the 2,825 low workload facilities named as part of the RAOI. This verification process included linking various library references to information on addresses, districts, ZIP Codes, unit finance number, facility number, finance number, and other unique identifiers.

workload category, the most it could save from closing those facilities is \$223.7 million annually.

D. Attempts to Estimate the Postal Service's Total Operating Revenue for RAOI Facilities

Commission attempts to calculate the total revenue for the RAOI facilities were hindered by data issues similar to those encountered on the cost side. In this case, two types of revenue were provided by the Postal Service: walk-in revenue and total operating revenue. Walk-in revenue consists of retail revenue¹¹⁵ collected from window transactions. Specifically, walk-in revenue includes revenue from postage, retail merchandise, philatelic sales, passport services, packaging products, money orders, post office boxes and other retail. USPS-T-1 at 11. Total operating revenue includes both walk-in revenue and all other revenue generating items such as bulk and commercial mail.¹¹⁶ Under the RAOI, the Postal Service's revenue screens only included walk-in revenue, but the additional transactions captured by total revenue are important for the Commission's complete revenue analysis here. However, use of the total revenue data poses problems for analysis. In particular, as shown in the table below, there is nearly a \$4.7 billion variance between the total operating revenue and walk-in revenue for all the RAOI facilities.

¹¹⁵ Retail revenue is total sales from digital services, stamps on consignment, self service, stamps by mail, fax, or phone, retail partners, and postal facilities. USPS-T-1 at 10, Table 2.

¹¹⁶ Another data quality issue was duplicative entries. As part of the data scrubbing process, of the original 3,656 facilities identified as part of the original RAOI list of candidate facilities, the Commission found 37 of those were duplicates of other entries. This affected the total walk-in revenue and total revenue calculations.

| FY 2010 Revenues (in millions) | Operating | Walk-in | Variance |
|---|------------------|----------------|------------------|
| Category 1: <i>Already Under Review</i> | \$159.7 | \$7.1 | \$152.5 |
| Category 2: <i>Low Workload</i> | \$55.1 | \$44.9 | \$10.1 |
| Category 3: <i>Stations and Branches</i> | \$477.8 | \$125.5 | \$352.3 |
| Category 4: <i>Retail Annexes</i> | \$4,242.0 | \$67.9 | \$4,174.1 |
| Total: | \$4,934.6 | \$245.5 | \$4,689.0 |
| Source: USPS-N2011-1-NP-18; USPS-N2011-1-NP-3. | | | |

This variance appears to be largely due to inclusion of the 180 retail annexes category as part of the RAOI. The data shows that all 180 retail annexes have \$67.9 million in walk-in revenue yet \$4.2 billion in operating revenue.¹¹⁷

E. Attempts to Estimate the Postal Service's Expected Cost Savings From Closing RAOI Facilities

The Commission attempts to estimate the expected net cost savings to the Postal Service from closing the RAOI facilities, using two different methods, to provide the Postal Service, stakeholders, and policy makers with appropriate tools and information for better decision making on this initiative. This analysis illustrates the data quality problems encountered and demonstrates why the Postal Service should improve its data recording. Accurate facility-specific costs and revenue information will enable sound, well-reasoned, and informed decisions.

¹¹⁷ Retail annexes are stations or branches that offer retail services but do not house delivery operations and are usually open 6 days per week. USPS-T-1 at 16. Retail annexes are frequently associated with mail processing facilities that accept dropshipments of mail from large mailers, which, at least in part, likely account for the stark difference between walk-in revenue and total operating revenue.

1. Method 1—Library Reference Data

The Commission's first method uses the total operating costs,¹¹⁸ total operating revenue, and walk-in revenue provided by the Postal Service in a series of library references. This method overstates a significant number of the RAOI facilities' revenue and costs. The Commission compared net incomes employing both total operating revenue and walk-in revenue to explain the overall financial status of the facilities in the RAOI. Under this method, the RAOI facilities produced an average operating deficit of \$564,000 based on walk-in revenue versus an average gain of \$727,000 using total operating revenue.

¹¹⁸ The Commission used total operating costs because cost data broken out by function is not available. Using total operating costs may overstate the estimated costs savings from discontinuing retail operations because some of these costs may be related to delivery, mail processing, or other operations that would not be saved from closing retail operations.

Net Income Comparison Table

| Net Income Comparisons (in millions) | Based on Walk-in Revenues | | Based on Total Operating Revenues | |
|---|---------------------------|-----------------|-----------------------------------|-----------------|
| | Total Net Income | Avg. Net Income | Total Net Income | Avg. Net Income |
| Category 1: <i>Already Under Review</i> | (\$87.7) | (\$0.330) | (\$64.8) | \$0.244 |
| Category 2: <i>Low Workload</i> | (\$178.7) | (\$0.063) | (\$168.5) | (\$0.059) |
| Category 3: <i>Stations and Branches</i> | (\$628.1) | (\$16.4) | (\$275.7) | (\$0.718) |
| Category 4: <i>Retail Annexes</i> | (\$1,167.3) | (\$6.5) | \$3,006.0 | \$16.9 |
| All Categories | (\$2,061.7) | (\$0.564) | \$2,627.0 | \$0.727 |

The table above highlights the disparity in potential net cost savings and the accuracy of the financial figures submitted by the Postal Service for the various categories of the RAOI facilities. As an example, the average net income based on walk-in or total operating revenue does not differ significantly for RAOI category 2; however, average net income comparisons for RAOI categories 3 and 4 differ dramatically.

2. Method 2—Administrative Records from Post Office Closing Appeals

The Commission's second attempted method utilizes the many administrative records filed publicly and in accordance with the appeals process for discontinued post

offices with the Commission's docketing section.¹¹⁹ In these administrative records, the Postal Service calculates, lists and itemizes several financial figures related to the facility's operations.¹²⁰

To attempt a meaningful comparison with the RAOI facilities, the Commission screened the 109 facilities for which it had data as part of the administrative appeals process to elicit similar revenue and workload constraints to those in the proposed RAOI.¹²¹ The Commission's analysis produces an estimated total savings using the average savings figures from each appeal that corresponds to a particular RAOI category and then multiplied that number by the actual number of facilities in the corresponding RAOI category. As shown in the table below, this estimation method suggests that the Postal Service would save \$99.2 million by closing 95 percent of the facilities identified in this initiative.

¹¹⁹ Participants routinely cite to information from the Commission's appeal ("A") series dockets in this case in support of their analysis. See, e.g., Postal Service Brief at 50-51; USPS Reply Brief at 25-26.

¹²⁰ For FY 2010 and FY 2011, appeals were docketed for approximately 109 postal retail facilities. Their administrative records are accessible on the Commission's public website.

¹²¹ The first category of offices was facilities that had earned workload of less than 2 hours per day with revenue under \$27,500 per year. Only two offices from the 109 appeals met this requirement. Therefore, the filter was modified to include offices with earned workloads of 2, 3, and 4 hours. This provided a set of 30 facilities. The second category of offices was for stations or branches earning revenues less than \$600,000 in FY 2010, had less revenue in FY 2010 compared to the average of the annual revenue earned in FY 2008 and FY 2009, and was located within 2 miles of at least five alternative access sites. Because the administrative appeal records do not accurately track operating revenue or costs from prior years nor provide consistent data on alternative access sites, a modified filter was used. The modified filter reviewed facilities that had less than \$600,000 in walk-in revenue and did not include EAS-levels 51, 52, or 53 to better attempt to mimic station and branch-type behavior. This modified filter resulted in a data set of 62 facilities. The third category of the RAOI candidate list did not allow for a reliable estimation using this method because there were no similar such facilities for which appeals were filed. The fourth category, consisting of postal retail facilities that were in the process of undergoing discontinuance review did not use any objective screening criteria. Accordingly, no filter was applied to screen the appeals since the diversity of facilities listed in the appeals dataset best correspond to the range of facility characteristics listed in this RAOI category. Thus, all 109 facilities were used for this estimate.

| RAO Component Description | Facilities in RAOI Category | Avg. Savings | Estimated RAO Savings (in Millions) |
|----------------------------------|------------------------------------|---------------------|--|
| Low Workload | 2,825 | \$23,713 | \$66.9 |
| Station/Branches | 384 | \$52,490 | \$20.1 |
| Already Under Review | 265 | \$46,083 | \$12.2 |
| | | | \$99.2 |

This estimation technique, however, only outlines a viable method of estimating total savings from the RAOI. A larger sample of administrative records from appeals cases would be needed to more accurately estimate the savings potential of any discontinuance initiative.¹²² A larger sample set would also lessen reliance on library reference data which, as discussed above, has quality issues.

¹²² The appeals also would probably not qualify as “random” samples.